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THE

CANADIAN ELECTRICAL NEWS

JNO. HORN, EDITOR.

VOL. 1. MONTREAL, MAY 15, 1884. No. 4.

THE CANADIAN ELECTRICAL NEWS.

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JNO. HORN, Editor.

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Correspondence on all Telegraphic, Telephonic or Electric Light subjects is solicited

Readers are cordially invited to communicate their views and opinions on all topics within the province of this journal.

Items relating to Telegraphy, Telephony, Electric Light, or Inventions, will be thankfully received.

Rejected manuscripts cannot be returned unless accompanied by the necessary postage when received.

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MONTREAL, MAY 15, 1884.

THE TELEGRAPH LINES OF SOUTH AMERICA.

In South America the only Republic without a telegraph is Ecuador. Chili and Peru have had lines many years. Colombia only commenced hers within a few years, also Venezuela. The U. S. of Colombia now possess a network of many thousands of miles. A tender for the construction of about 500 miles of line, running from the town of Panama towards the border of Costa Rica was solicited by the Government at Bogota. But up to date no one has appeared desirous of obtaining the contract. The terms offered were not favorable, while the credit of the Government is not free from reproach.

The Central and South American Telegraph Co.'s lines run from Vera Cruz in Mexico to Lima in Peru. At Vera Cruz they connect with the lines of the Mexican Telegraph Co., which run to Galveston, Texas. Mr. James A. Scrymser is President of the two companies. At Lima the Central and South American Company's wires come into connection with those of the West Coast of America Company, whose terminus is at Valparaiso, in Chili.

The Central and South American Company's lines comprise 3,169¼ miles of cable, 300 miles of land wire, and connect exclusively with 2,800 miles of submarine cable and 20,000 miles of land wire in Mexico and Central and South America. The distance between New York and Valparaiso is 7,750 miles.

The route of the Company's cables is Galveston to Coatzacoalcos via Vera Cruz and Tampico, thence by land line across the Isthmus of Tehuantepec to Salina Cruz in the Pacific. From this point to Callao in Peru (the port of and nine miles from Lima, the capital of Peru), the stations are consecutively La Libertad, (Republic of Salvador), San Juan del Sur (Nicaragua), Panama (U. S. of Colombia), Buenaventura (U. S. of C.), Santa Elena (Ecuador), Payta (Peru) and Callao.

The whole work on the Central and South American Co.'s lines was completed in eleven months, an achievement unprecedented in the history of ocean cables for its rapidity.

The cables were laid by the India Rubber, Gutta Percha and Telegraph Works Company, of Silvertown, London.

The land line of 115 miles from St. Elena to Guayaquil, in Ecuador, was finished at the end of August, 1882. The line across the Isthmus of Tehuantepec, from Coatzacoalcos to Salina Cruz was finished on August 15th, 1883. Mr. J. R. France is the General Manager of the Company at Panama, and Mr. Frederick Davies at Lima.

Our readers will notice we have removed to 30 St. Helen Street, where all communications in future should be addressed.

SUPPORT THE LOCAL PAPER.

The local paper is the one identified with the interests of your home. It is conducted by those you know. Its columns are filled with what is of special and particular value to you. In its prosperity you have a vital interest, and to this prosperity you can best contribute by giving it your support and patronage. It knows your wants. It is your friend, your neighbor. Your duty is first to it, in preference to any and all others. No outside or foreign paper can possibly have claims upon you until your duty is discharged to the local journal. As the CANADIAN ELECTRICAL NEWS is the only one in the Dominion representing your interests, you should at once send us your subscription.

ELECTRIC LIGHTS are coming into use for steamboats on the Mississippi—why should they not be equally serviceable on the river St. Lawrence.

MR. JAMES WRIGHT of this city, an ingenious electrician, has invented a new and simple telephone. Several of our local capitalists are interested. It is proposed to sell the instrument as well as establish Exchanges.

Now that the summer is upon us, we should like to see our public squares lit up by the electric light from high towers, particularly Dominion and Victoria squares; the latter might be done from a central point on Craig street, at a spot dividing the two sections of this plazza.

PNEUMATIC Tubes are destined to play a very important part in the near future, especially in connection with telegraphy, as the indications are that the leading companies will use them to a considerable extent in large cities, in gathering in mesaages from sub-offices, and in distributing them to such offices for delivery by messengers.

WE would recommend Messrs. Pope & Edgecomb, 59 Wall Street, New York, solicitors of electrical patents to all Canadian inventors. Mr. Pope is an old and expert Telegrapher, as well as Author and Editor.

A BILL is now before congress providing for the organization of the patent bureau into an independent department of the Government.

IT would be very interesting to get at the loss, which an ordinary iron telegraph wire loses in conductivity every year, by loss of substance from rusting.

A CORRESPONDENT WRITES, "An error, perhaps typographical, appears in the article "A Trip to Torbay, N. S.," which was given your readers in the former number of the "News." Your correspondent says, "some of the staff have been there since the first message was flashed through in 1858." The Torbay Cable is that of the Direct Cable Co, and was, opened only in 1875. The writer, I presume, was probably thinking of the old *first* Atlantic Cable laid to Heart's Content, N. F."

ACKNOWLEDGEMENT.

Walter F. Glover & Co., 25 Booth Street, Manchester, England, electric wire and cable makers, a very useful printed table showing the relative dimensions, lengths, resistances and weights of pure copper wire.

THREE card photographs, showing the Elgin, Illinois, Electric Light Company's Tower system. The Town being lit from seven high towers.

CITY LOCALS.

A. WALSH, Chief Receiver of the G. N. W., was recently on a visit to Toronto, as witness, in connection with a law suit.

WHY is a poor Telegraph Operator like the Brokers in the Stock Exchange? Because he "bulls up" and "bears down."

ST. JOSEPH STREET, presents a fine appearance in the evening, being well lighted by the electric light.

THE general Telegraphic business of this city has wonderfully picked up since the opening of navigation.

MR. JAMES KENT, Night Manager, of the G. N. W., has been appointed Local Secretary for this District of the C. T. Insurance Association. We would strongly urge every operator to join.

THE Government has made arrangements by which, in future, signal news will be telegraphed every day at 11 a.m. to the Montreal Board of Trade, and in the evening to the press from the Gulf stations.

THE WHARVES ILLUMINATED. The electric lights on the wharves were lighted on the 5th instant for the first time this season. The display attracted a large throng of idlers, who promenaded along the revetment wall until a late hour.

JOHN TRENAMAN, who is Agent for the G. T. R. at Kingston, is one of our latest subscribers, and an *old timer*, who commenced his career in Three Rivers, in 1857. We are much pleased to hear of his advancement.

MISS MCLAUGHLIN is the operator in charge of the G. N. W. Co.'s office, corner of Courville and St. Lawrence Main Street. The office is in the Drug store of Mr. J. A. Dawson, who, himself is becoming quite proficient in the art.

A WELL insulated gutta percha wire was last week being strung from the Custom House to the Mount Royal Observatory. The line is that to be used for dropping the time ball at noon, and is insulated in this manner to prevent accidental cross connections from other lines falling on this particular wire.

DR. NORVIN GREEN, President of the Western Union Telegraph Company, accompanied by Mr. Erastus Wiman, President of the Great North Western, arrived in this city, from New York, on the morning of the 7th. They were met at the depot by Mr. Angus Grant, Sup't.

MR. JAMES STEPHENSON, formerly Superintendent of the Grand Trunk Railway Telegraph lines, now the General Passenger Agent, is mentioned as the coming General Manager of the Chicago and Grand Trunk Railway. We believe him to be a thorough and energetic rail way man.

MAJOR BAYNES leaves Montreal in a few days for the North West, to take the management of the "Mount Royal Ranch Co." recently incorporated, he being the principal stockholder and promoter. It will be remembered he was the first to introduce the District Telegraph system in this city, some eight years ago, which has been in successful operation since. He retired from the management of the Canadian District Telegraph Co. in the spring of 1881, and accepted an important position with a large ranching company, then formed; he has, therefore, had an extended experience in the business. We wish him every success in his new enterprise.

NOTWITHSTANDING the statements from Ottawa, regarding the telegraphic reports from the Gulf for the Board of Trade of Montreal, there is every probability of the question being amicably settled. It is learned that the Great North Western Telegraph Company has taken the initiative, and has made liberal overtures to the Government for supplying all the information required by the shipping men of Montreal and Quebec. It is understood that the department of marine has the matter in consideration, and that a favorable reply will be forthcoming in a few days. We presume the visit of Dr. Green and Mr. E. Wiman, to this city, was in connection with this subject.

THE Road Committee of the City Council reported in favor of granting permission to the Woodward Underground Telegraph and Telephone Company to lay cables in certain streets. In council, this was met with some objections on the 12th inst. and was left over for the present.

MISS MCNIDER, an accomplished young lady and an excellent operator, leaves the service of the G. N. W., Main office. She will enter the W. U. Co.'s service at Troy, N. Y., We wish her every success.

MR. N. W. BETHUNE, District Sup't G. N. W. at Ottawa, was in town last week for a few days. He reports the company's business as steadily on the increase.

THE TELEGRAPH.

PREPARATIONS are being made to place 50 miles of the Chicago fire alarm wires underground.

WHY is the Telegraph like the leader of an orchestra? Because it beats time for all.

MR. JOHN H. CAMPBELL, Telegraph Operator at Bridge River, is spending a few holidays in Winnipeg.

THE C. P. R. are stringing several wires along the Ontario and Quebec railway between this City and Toronto, in order to prepare for commercial business.

MR. A. B. CORNELL, Ex-Governor of the state of New York, an old Telegrapher, has recently published a well-written biographical sketch of his father, the late Hon. Ezra Cornell, who has left an honored name behind him as the founder of Cornell University.

THE *Edmonton Bulletin* says: "Miss Euphemia Douglass secured a verdict for $1000 damages against C. H. McDougall, Superintendent of Telegraph Construction on the Canadian Pacific Railway, for breach of promise of marriage, in Winnipeg recently. McDougall denied the promise.

DR. NORVIN GREEN, President of the Western Union Telegraph Company, who was recently in Ottawa, has received the contract for the construction of that portion of the Short Line Railway between Oxford station and New Glasgow, and between Canso and Louisburg, C.B. This road was heavily subsidized at the last session of Parliament. The contract for building the line was signed on the 10th inst.

THE committee of management of the Canadian Telegraphers' Mutual Insurance Association is composed of the following gentlemen: F. Roper, secretary and auditor, Great North Western Co.; W. S. Battin, general manager's assistant, Great North Western; A. G. Allison, train despatcher, G. T. R.; J. C. Platt, train despatcher, G. T. R.; W. M. Goodwin, telegraph inspector, G. W. R.; James Webster, superintendent N. & N. W. R.; W. H. Allison, train despatcher, C. V. R.

THE telegraph line between Battleford and the South Branch went down during the wet weather that prevailed there recently. Doubtless this was what inspired some genius at Qu'Appelle to evolve from his fertile brain the stupendous falsehood concerning an Indian uprising at Battleford. The Battleford operator is concentrating his energies on the invention of a killaphone, with which to visit sudden destruction on the Qu'appelle Annanias.

MR. Andrew Carnegie, once a Telegraph messenger, now a Pennsylvania millionaire, has recently given $50,000 to Bellevue Hospital Medical College, New York, of which institution he is trustee. The gift is to be used in erecting a building and providing apparatus for the investigation of causes and conditions of disease. Mr. Carnegie is recognized as one who uses the great wealth which his own energy and ability have enabled him to accumulate with discriminating liberality. The present benefaction is a wise laying of foundations upon which constantly enlarging scientific results, helpful to mankind will be raised. The wisdom which selected this application of the gift is as notable as the liberality which inspired its bestowal.

ELECTRIC RAILROADS IN LONDON.

What the rapid transit commissioners are doing in the laying out of cable roads in New York is being done in London, with electricity as the motive power, and soon that city will be a net-work of rapid transit electric railways. The success of the Brighton electric railroad has stirred up general interest in London, and the work of building similar ones is rapidly progressing. The Brighton road extension will be opened at the end of this month. The short road was operated from August 2, last year, to January 4, last, and in that time 30,000 passengers were carried. This road only ran from the Aquarium to the Chain Pier, and had a guage of two feet. A Siemen's motor was used, run by an Otto gas engine of two horse power. The car was small and only carried ten passengers. In order to continue the road a mile further on, it was decided by the operating company to relay the track with a two feet nine inch guage. This has been done, and the road is to be opened in a few days. As before, Siemen's dynamo will furnish the current, and the dynamo will be run by an Otto gas engine of increased power. The generator and engine are to be situated under the sea-wall, in a vault. During the time of the road's operation last fall there was not a day that it did not pay a profit.

Work is now being rapidly pushed on the Charing Cross & Waterloo road, which will run from the Waterloo station of the London & South Western-railway to Charing Cross, a distance of five furlongs and two chains. The capital of this road is £100,000 or 10,000 shares of £10 each, and the company can only use electricity as the motive power. The road passes under the Thames in a tunnel which is now being dug. This work, with that of the underpinning necessary along the line, makes it a difficult piece of engineering, but it will be finished as soon as possible. The Siemens have taken a contract to operate this road for a year. A third company, with a capital of £500,000, has laid out four new routes of electric railroads. These routes are from St. Martins-in-the-fields, to St. Giles-in-the-fields, three furlongs and seven and four-tenths chains in length, from Piccadily to St. James, from St. Giles to Newgate, and from Newgate to St. Michael's. These roads are to be handsomely fitted up with handsome cars, and the Siemens' dynamos will furnish the current.

THE ELECTRIC DISK.

It is rumored that a syndicate has been formed for the purpose of developing and introducing a new invention which is said to combine the usefulness of the telegraph and telephone with that of the electric light. The plans of the Company, for some unexplained reason, are kept very dark, and the possibilities of the invention are somewhat indefinite; enough so to challenge doubt of the reality of the whole thing, if the claims put forward by those who talk about it were not so positive. One gentleman, who said that he was not at liberty to state the names of the inventors or go into particulars at present, said: "The electric light will soon be a thing of the past. The disk is an electric apparatus, and by it, we in the night time, can receive sunlight from any point on the earth where the sun is shining. Sunlight has already been transmitted to a dark room over a wire. I have seen it myself." Then, too, scenes of any kind, in action or in repose, however distant, which can be focused on the disk at the transmitting end of the wire, are registered with photographic accuracy on the disk at the delivery end.

These particulars are all given, with more or less positiveness, by other persons who seemed able and willing to talk about the invention. None of the parties interviewed would give the inventor's name or localize the invention in any way, except by saying that it originated in Boston.

THE TELEPHONE.

The Bell Telephone Co., of Montreal through Mr. C. F. Sise, manager, have subscribed $75 to the Western Hospital.

Of all inventions, old or new, the Telephone is the one that has most rapidly come into use the world over.

Recognition of the voice in telephone conversation is admitted by the courts.

The certificate of incorporation of the Universal Telephone Co. was filed in New York recently with a capital of five millions.

The Telephone Box at the office of Mr. Walter Kavanagh, Fire Insurance Agent, at 117 St. Francois Xavier Street, Montreal, was entirely destroyed by fire recently, the result of a cross connection with an electric light wire.

During the march of the volunteers at Portsmouth, England, in their recent manoeuvers, a field telephone was used to maintain communication between the Commanding General and the different sub-commands.

AMERICAN SPARKS.

Applications for space from abroad have been so numerous, in connection with the proposed Electrical Exhibition at Philadelphia, that an "annex" has already been found necessary.

"The Electrical Era," published in Philadelphia, is the latest Journal devoted to the development of the science of electricity. It is an eight page, royal quarto, well printed and edited, and will no doubt do much to keep the outside world well posted in connection with the great forthcoming International Electrical Exhibition, to be held in that city in the autumn of this year.

J. A. Berly's (1884) Universal Electrical Directory and Business Advertiser, with British, French, Belgian, Russian, Canadian, German, and United States sections, the electrician's "vade mecum," besides, containing full lists of business houses and professionals; contains the following:—

Remarks on the Past Year, being a Record of Inventions, New Companies, etc.; Tables and Formulæ, including Equations of Absolute Units, Wire Gauges, Resistance and Weight Tables, Cores of Cables, Comparison of Batteries, etc.; Morse Codes, American and International; a Full List of the Officers and 1,111 Members, with addresses, of the London Society of Telegraph Engineers and of Electricians; Telegraph, Telephone, Cable and Electric Light Companies of the world tabulated, with Officers, Capital Lines operated, etc.; Catalogue of Electrical Publications, with Prices; Rules and Regulations as regards Fire Risks for Electric Installations, Telegraphs of the world; a Full list of the American Bell Telephone Companies, Licensees, Exchanges and Manufacturers in the United States; Summary of Patents bearing on Electricity, Magnetism, etc.; Franklin Institute Exposition of 1884 (Circular); Electrical Patent Statistics, giving Dates and Priority of Principal Inventions issued since 1833, with Names of Inventors; Full List of 2,200 Electrical Patents (and inventors' Names) issued in 1882 and 1883; Digest of the Patent Laws of the Most Important Countries of the World; Members of the New York Electrical Society; Association Railroad Telegraph Superintendents; Telegraphers' Mutual Benefit Association; United States Signal Service, List of Officers, Territory Occupied, etc. Cornell University Course in Electrical Engineering (Circular); Societe Internationale des Electriciens de Paris.

For Sale by Cumming & Brinkerhoff, 219 East 18th Street, New York.

CORRESPONDENCE.

ELGIN, ILLINOIS, U. S. A.,

April 21st, 1884.

EDITOR CANADIAN ELECTRICAL NEWS,

Please find enclosed our subscription.

The tower system of lighting is a pronounced success; we send you a photo' of the towers in use, and you are at liberty to make such use of the matter sent you as you think proper. We consider five lights on a tower 150 feet high, equal to twenty lamps on poles; we are about ready to offer a steel tower to the public, and may send you drawings in detail for publication. I have as Manager of the Tower Co., put up over 60 towers in various American cities, and am prepared to build steel towers for any parties wishing them in Canada. We should have the steel rolled in Canada, and I would like to make arrangements with some of your Rolling Mills to run out the steel for us. Can you refer me to good parties? I would be willing to give an interest in our business in Canada to substantial parties who might provide all the material for towers sold in Canada. The braces are made of round iron, the couplings are drop forged and some of the fittings are malleable iron. We feel confident of a large business for light house uses, and when Government officials see the improved light, and really inexpensive light houses, I am sure they will be adopted largely, in place of oil. Our prices for steel towers will be

100 feet	$ 600
125 "	900
150 "	1200
175 "	1800

and Light houses usually cost ten times as much. The towers are built strong and made to last. Five lamps on a tower 150 feet high will light handsomely a radius of 2,000 feet, I make a rough plan of the location of the towers in Elgin, and add that the light gives general satisfaction,

I am Gentlemen,

Yours truly,

GEO. S. BOWEN,

President Elgin Electric Light Co.

WHILE we are glad to learn of the promotion of Mr. James Couper, to the position of chief in the Commercial Telegraph Office at Winnipeg, we regret that he is about to leave town. His steady attention to his duties has earned for him the reputation of being a reliable and efficent servant, and however his place may be filled by Mr. Sine, who succeeds him, his departure will be regretted by the general public who have had dealings with him for the past year. *Thunder Bay Sentinel*, Port Arthur.

AN ingenious device to prevent boiler explosions has recently been patented. It consists of an electric battery in the wall near the boiler, connecting with a gong by negative and positive wires. These wires run to the water gauge and connect with a glass bulb filled with mercury. When the water falls below the point of attachment the steam rushes into the space surrounding the mercury bulb and the mercury expands. As it rises in the tube it comes in contact with a platinum wire, thus closing the electric circuit and ringing the alarm bell. When water is pumped into the boiler it forces the steam back. breaks the circuit and puts the alarm in working order again. This invention recommends itself on account of its simplicity.

DOMINION GOVERNMENT TELEGRAPH LINES.

THE annual report of the minister of Public Works of the Dominion, submitted to parliament, contains statistics showing that so far as goverment management of telegraphs is concerned, a very unfortunate result has been reached. The lines built have cost nearly $800,000. The expenditure last year was $55,000, while the receipts were only $27,000, showing a loss of over 50 per cent. It is true that many of these lines are in remote quarters, but even a perfect system, such as that taken over from the Western Union Company in British Columbia, shows a similar result. These lines cost $94,000; the expenditure last year was $35,000, while the revenue was only $24,000, showing a loss of $11,000. The appendix contains figures from the lines owned by the Great North Western Telegraph Company. The number of telegraph offices in connection with this and other private lines in Canada is 2,259, or one office to every 1,914 inhabitants, while in the United States there is only one office to every 2,700 persons. Even in Switzerland, with its dense population, there is only one office to every 2,500 persons. The number of messages sent from each office was 1,441. The report contains a letter from Mr. H. P. Dwight, the general manager of the G. N. W. Telegraph Co., which states that in mileage of lines and number of offices, in proportion to population, Canada exceeds England by nearly four to one, and that Canadian tolls are probably the cheapest in the world, taking all things fairly into account, and will still compare favorably with the reduced rate of 6 pence, shortly to take effect in England. The Great North Western Telegraph Company sends 10 words 1200 miles for 25 cents, and between all towns within 12 miles distance, for 15 cents.

COMPETITION increases business; at least, such would seem to be a plain inference from Dr. Norvin Green's statement of Western Union receipts for some weeks past. He says there are gains all over the country. At Boston, the gain was $1,400 in the first week in April, and $2.000 in the second week. In New York City, the earnings last year for the two first weeks in April were $27,100, and $28,000; this year they are $26,200 and $28,000. At Chicago, they were last year $13,800 and $14,500; this year they are $18,900 and $17,700. At St. Louis there was an increase in the same weeks of $1,000. At San Francisco, in face of a reduction from $1.50 to $1.00, earnings increased largely in each week of the present year. Recent weekly earnings of test offices representing three-fifths of the Western Union business, compared with the corresponding weeks of 1883, were:

February.	1884.	1883.
First week	$176,000	$161,000
Second week	177,000	174,000
Third week	166,190	166,000
Fourth week	169,000	169,200
March.		
First week	167,000	169,000
Second week	170,000	168,000
Third week	171,000	158,000
Fourth week	182,000	161,000
April.		
First week	177,000	164,000
Second week	175,000	163,000
Third week	176,000	166,000

BALTIMORE & OHIO TELEGRAPH COMPANY.—In the suit brought in the United States circuit court in Hartford, Conn., by the the Baltimore & Ohio Telegraph Company against the New York & New England Railroad, to compel the railroad to transport its men and materials for construction purposes, and distribute its poles. Judge Simpson refuses the prayers of the petitioner on the ground of an existing contract between the railroad and the Western Union Telegraph Company to give exclusive privileges to the Western Union, as against any other telegraph company, in all matters in which it was not bound by the law of common carrier.

ELECTRIC LIGHT.

Belleville is forming an Electric Light Company. Its capital will be $10,000.

The Brush Electric Light Company have secured the contracts from the British Admiralty for fitting up the "Bacchante," "Raleigh" and "Conqueror."

The Royal Electric Company are preparing a plant in Montreal for three hundred lights, which they expect to have in use the coming season.

307 Edison Electric Lighting plants have been sold in the United States and Canada since 31st May, 1883, aggregating 59,173 lamps.

The electric lights on the high masts at Los Angeles, Cal., can be distinctly seen from the Island of San Clemento, eighty miles out at sea.

One dynamo machine of the Thomson-Houston system of Electric Lighting, was shipped last week to Halifax, N. S., for a fifty light plant for that City.

The Montreal Board of Fire Underwriters are taking steps to have all the electric light wires in Montreal properly insulated, and to have an Inspector for the purpose, appointed by the City Corporation.

At the instance of Mr. Roy, Montreal City Attorney, amendments were made to the Royal Electric Company's bill, at Quebec, to place its excavations in Montreal, under the control of the City Surveyor.

At Winnipeg, a new system of lightning arresters has been attached to the telephone at the central office, so that it will be almost impossible for a similar accident to that of 10th inst. to occur again, such as lightning burning the wires.

The Phœnix Electrical Company, organized to operate Mr. Craig's new system of electric lighting, has through financial difficulties ceased operations, but it is expected will resume again shortly.

Napanee is working up an Electric Light Company. A dynamo has been placed in the brush factory and the Electric Company are going to run the light for a week, beginning on May 24th.

Messrs. Bronsons and Weston's, Gilmour & Co.'s, and Levi Young's mills, at Ottawa, all began night work on the 6th inst., with new installations of the United States Electric Lighting Company's system.

The "Vancouver," the magnificent new steamer of the Dominion S. S. Line, will have the electric light supplied to every department of the ship, including the side lights in the lighthouses; the system being that of Messrs. Siemens Bros. & Co., combined with Swan's lamps. When it may be necessary to work at night she is supplied with a cluster of electric lamps to illuminate the decks.

The Peterborough Electric Light Company have not allowed the grass to grow under their feet. They received their charter on Saturday, May 5th, and on Thursday night they had completed arrangements to give Peterborough all the advantages to be obtained from the system of lighting by electricity. Mr. W. H. Boisfeuillet, the agent, and Mr. H. E. Irvine, one of the managers of the Royal Electric Company, have been there for some days, and they have entered into a contract with the Peterborough Electric Light Company to light the town with their system. The necessary dynamo machines and lamps to supply seventy-five arc lights have been ordered, and other machines will be added as they are required. The Peterborough Company is organized with a capital of $10,000. The directorate is composed of men who will push matters energetically, the directors being Messrs. A. P. Pousette, Thos. G. Hazlitt, Richard Hall, Wm. Davidson, Wm. Walsh and H. E. Irvine, of the Royal Company.

THE COMMERCIAL CABLES.

ARRIVAL OF THE STEAMSHIP "FARADAY" AT NOVA SCOTIA.

Busy Scenes On Board.

Dover Bay, Where the Shore End of the Cables will be Landed.

PREPARATIONS ALREADY COMMENCED.

Dover Bay, via Cape Canso, N. S., May 6, 1884.—Soon after daybreak this morning, Captain Burrows of the tug Goliah, and your correspondent sighted a large steamer from the Highlands of Cape Canso. She was heading directly for the land, and with the aid of a powerful glass she was made out to be the Faraday, having on board the first instalment of the Commercial Cable Company's double cables.

Steam was gotten up immediately and the Goliah was soon under way. She carried Mr Dickenson of the Commercial Cable Company; Mr. Whitman, the Canso Agent for Messrs. Siemens, and several visitors.

As soon as the Faraday was observed, Captain Welch launched his boat, set his sails and was soon booming along in the direction of the cable steamer with a stiff breeze that made his small craft careen to her bearings.

Soon the pilot boat was alongside the Faraday, and the pilot was on the bridge. The engines, which had been stopped for some time, were then started, and the monster ship proceeded dead slow up Dover Bay until she dropped anchor close in shore, about a quarter of a mile off the mouth of the cove where the shore end of the cable was to be landed.

As soon as the anchor was dropped the party from the Goliah, clambered up the steep dark side of the Faraday, and stepped on the deck.

The voyage out, the captain said, had been pleasant enough for this time of the year in the North Atlantic, and with the exception of a few westerly gales, the ship had made a fair passage.

No time was now lost in getting to work. Energy seemed to characterize the movements of every man and boy on board and the Faraday carries a large crowd. The anchor was dropped at noon and a few minutes after, the Goliah had gone after two schooners moored on Little Dover Run, which were to be utilized in carrying ashore the large drums of the cable which is to be connected with the Shore end of the Atlantic Cable and trenched from Cable Cove across the country to some favorable spot in the vicinity of Cansotown. Meanwhile several of the Faraday's boats had been lowered, and furniture and stores for the quarters at Dover Bay were landed there.

The hut, before the arrival of the Faraday, was simply an unpretending structure of wood, with a dull red roof, which relieved the monotony of the craggy white rocks by which it is surrounded. It was soon transformed into a comfortable dwelling house, cosy furniture, scientific instruments and a large amount of stores for the inner man, adding to the home-like appearance of the building.

The schooners next came alongside and tossed about uneasily in the short, choppy sea which a stiff breeze blowing out from the land had caused to rise. Strong tackles were rigged, and the fourteen large drums of land cable, weighing close upon two tons each, were lowered on the schooners' decks. This was an operation which took considerable time to perform. When it was completed night was approaching, and it was decided to defer the landing of the shore end of the cable until to-morrow morning.

Competent men from the firm of Messrs. Siemens & Co., surveyed Dover Bay some months ago. They came to the con-

clusion that it was better adapted, from the nature of the bottom and the freedom of the Bay from ice, for the purpose of cable laying than any other point along the coast.

The deck of the Faraday resembles a huge workshop. It is covered with complex machinery which would puzzle the brains of all but an expert. Along the decks at intervals are grooved wheels, over which the cable passes as it emerges from the holds until it reaches the large wheel at the stern, from which it passes into the ocean. Workshops of the electrical engineers, where are the nicest instruments for testing, work shops fitted up with anvils and shipsmiths' tools, carpenter shops and every other appliance of mechanical skill are to be found, while walking the decks of the Faraday from stem to stern.

While the drums were being rolled along the decks for transportation over the Faraday's side a busy corps, under the direction of the electrical engineers, got up the end of the Atlantic cable from below and placed it into position on the grooved wheels which conduct it over the stern.

No better ship for cable laying has ever been constructed than the Faraday.

The leading inhabitant of Dover Bay is called "Governor" Horn. He has buried five wives and is enjoying connubial bliss with the sixth. He has quite a colony of children of various ages.

The work up to a late hour proceeded smoothly. Early to-morrow the shore end will be laid and the Faraday will begin to lay the cable along the coast until Cape Ann is reached. A more auspicious beginning could not have been made, and all on board are congratulating themselves on the successful start.

Following is a list of the scientific staff :—

J. R. Brittle, engineer in charge of the expedition: F. Jacob, chief electrician; W. Dieselhorst, cable engineer; O. Doerner, cable engineer; F. Lorch, cable engineer; T. Giessen, cable engineer; J. Hannema, cable engineer; E. Krause, cable engineer; R. Heinitz, cable engineer; T. T. Vernon, cable engineer; E. Arp, cable engineer; R. Struck, assistant electrician; J. R. Pratt, assistant electrician [to land at Cape Ann]; O. Strubel, assistant electrician; L. Fuller, assistant electrician; H. Haensel, electric light engineer; H. M. Ash, cable engineer and draughtsman; H. G. Cunningham, cable engineer and purser; W. J. Graham, electrician in charge at Dover Bay, and J. Schneider, assistant electrician.—*New York Herald.*

HALIFAX, N.S., May 8.—A Canso Telegram of to-night says:—Early yesterday the steamer "Faraday" commenced landing the shore end of the McKay-Bennett cable, and before noon steamed out of Dover Bay, paying out the cable towards Ireland. After laying some seventy miles the end was buoyed, and the ship returned, entering the bay early this morning. In less than six hours the shore end of the Cape Ann cable had been landed, and the ship sailed for Cape Ann. They expect to complete the laying of the cable from Dover Bay to Rockport, Mass., in less than a week, and return to Halifax for coal.

EUROPEAN FLASHES.

THE net profit of the Paris Electrical Exhibition was $65,000, all of which was turned over to the Government in trust for the foundation of a Central Electrical Laboratory, to be devoted to the promotion of electrical science, under the direction of the Minister of Posts and Telegraphs.

THE Western Union Telegraph Company has contracted for 800 miles of underground cable to be made in England, to be used in New York and other cities in the United States, as well as Canada.

WM. DENNY BROS., Dumbarton, Scotland, are to add an Electrical Department to their ship building establishment.

YESTERDAY afternoon the employes of the commercial telegraph department of the C. P. R., Winnipeg, presented Mr. Sine, late manager, with the following:

ADDRESS.

A. Sine, Manager Canadian Pacific Railway Company's Telegraph:

DEAR SIR:—It is with feelings of the most sincere regret we learn of your intention to accept a position in Port Arthur, in lieu of the one you have held so long and filled so ably in this place.

We cannot allow you to depart from us without expressing to you the high esteem you are held in by all your late employees. Allow us also to tender you our sincere thanks for the kind and gentlemanly treatment of us while serving under you, also for the much needed assistance you have so kindly given to aid us in the performance of our duties.

May you in your new field of labor attach those with whom you come in contact as closely to you with ties of friendship as you have those whom you are now leaving will always be the wish of your fellow employees.

(Sigbed) G. Slack Wood, R. J. Pennie, Peter Castello, Thomas E. Mitchell, F. J. Baldrick, W. Rutherford, Duncan McGill, A. McRae, H. C. Howard.

The address was accompanied with a very handsome meerschaum pipe, cigar holder and pouch.

Mr. Sine thanked "the boys" for their kindly recognition, and expressed a hope that the unanimity and good fellowship which has heretofore existed among them would long continue.

THE effort made to get up a club for Telephone communication in Richmond, Que., has failed for want of the requisite number of lessees. The company has made an offer to the council, to erect a fire alarm system throughout the town, with an electrical striker, in the bell-tower of the R. C. church for $1,400, which offer will come before the council shortly.

M. L. Ross, of the Royal Electric Co. of Montreal, is now in St. John, N.B., and proposes to have the electric light in operation there within three weeks. Power will be obtained from some of the city establishments, or, if necessary, the company will furnish their own engines and boilers.

FLASHES HERE AND THERE.

The relative efficiency of electricity, gas and oil for use in lighthouses is being tested in England, where the Trinity Board has selected certain ranges, about three miles inland from the South Foreland lighthouse, as lines of observation along which measurements are to be made. These experiments are expected to last several months.

Ernest M. Mathews, who has been clerk under Mr. W. J. Graham of the G. N. W. Co. of Montreal during the last nine years, severed his connection with that company on the 1st inst., and is now Cashier at the Windsor Hotel. He carries with him the best wishes of his late employers. Manager Sweet, of the Windsor, has made an excellent choice.

Mr. H. W. Cole has arrived in Seattle, N. W. T., for the purpose of introducing the arc and incandescent lights of the United States Electric Lighting Company. He will at once begin the work of introducing this light. It is very highly spoken of, and by reliable authority is said to be a perfect success. Its introduction there is highly probable.

Mr. B. S. Jenkins, Superintendent of the Canadian Pacific Railway Company's telegraphs, left Winnipeg for the West, last week on a trip of inspection.

The C. P. R. Co. have moved into their magnificient new quarters, Toronto. Nine dispatchers will probably be employed, three for the T. G. & B. division, three for the C. V. R. and three for the O. & Q. It is expected that eight or ten operators, for commercial business only, will be placed at work in the same room.

The South Branch of the river Saskatchewan, N. W. T., is open at the telegraph crossing, and the wire broke and fell in the water last Saturday. The operator stationed there received messages at one side of the river and taking them across in a boat sent them from the other side.

Mr. F. N. Gisborne, Sup't of Government Telegraphs, will read a paper before the Royal Society of Canada, next week, "on electrical induction in underground metalic conductors," a full report of which we hope to give our readers in our next issue.