

Engineer Chipman Advises Separate High-Pressure System For London

TORONTO EXPERT REPORTS ON CITY'S WATER SUPPLY; THERE IS AMPLE SPRING WATER FOR YEARS TO COME

Present Supply Will Suffice for 57,000 Persons if River Water Is Used for Fire Protection, Etc., and Meters Are Installed.

SEPARATE SYSTEM IS BEST FOR FIRE FIGHTING

Would Give a Pressure of 250 Pounds and Would Cost \$300,000

—By Taking in Kilworth, Cronyn and White Springs,

Supply Would Suffice for 75,000 People—Great Wastage Under Present Conditions.

To the Editor of The Advertiser:

Herewith I beg to inclose a copy of a letter sent by me to Willis Chipman, C. E., Toronto, and also a copy of his report, both of which will explain themselves. Yours truly,

J. W. LITTLE,
Willis Chipman, Esq., C. E., Toronto, Ont.

Dear Sir:—Referring to our conversation last night over the telephone, I now beg to formally ask you to prepare a report on the London water supply. You are familiar with conditions here, and are aware of the many attempts that have been made to solve the question of the best method of increasing the supply.

As I have already informed you, at a meeting of the board of trade held about one week ago, I suggested a separate high pressure system for fire and other purposes, using river water only, and thus reserving the spring water for domestic purposes as far as possible. I am sending you copies of the newspaper containing a report of the board of trade meeting, and also clippings showing the criticisms that have appeared since.

Will you kindly include in your report an estimate of the cost of the high pressure system, as I have outlined it, giving separate figures for north and south branch plans, basing your estimates on the use of Niagara power (under Mr. Beck's scheme), and also on such power as is available at present. Please give your opinion as to the best location for the pumping station, also as to the effect of the use of meters, and whether raw river water should be used on the streets, and if sedimentation or filtration is necessary. I need not add that I want you to criticize the suggested plan very freely, point out any defects you may find in it, and suggest any changes you may think desirable.

If, in your opinion, there is any better way of increasing our water supply, please let us have the details, as my desire is not to carry any particular scheme, but to find out if possible what is the best thing to be done under the circumstances.

Kindly send me your bill on completion of your report at 1111, Kent at once. Yours truly, J. W. LITTLE,
London, April 27, 1907.

Mr. Chipman's Reply.

Toronto, May 17, 1907.
Dear Sir:—Your letter of April 27 requesting me to submit a report on the London water supply problem, with the accompanying newspaper containing articles respecting the same, were duly received. I now beg to submit my opinions and estimates for your consideration.

Report of 1903.
In my former report nine suggested schemes for increasing the supply were discussed, three of which I recommended, on the consideration of the board, viz.:

1. Increasing the supply one-fourth by metering 70 per cent of the services.

2. Construct an independent system for fire service, hoists, railway uses, street sprinkling, etc.

3. Filter the Thames water and pump same into the existing mains.

Additional distribution mains would be necessary in each scheme, and a new conduit from reservoir to the city in the first scheme.

I favored the first scheme, believing that the existing supply would prove sufficient for a population of over 50,000 people. As to first cost and operating expenses there was little difference in the three propositions.

I reported adversely on the surface streams, including Crow Creek, Ox-Bow Creek, etc., as I believed the water in either branch of the Thames above the city superior in quality to any of them.

Surface Streams.

To secure water from the drainage area of these small brooks by a system of underdrainage would prove an expensive undertaking, and the results cannot be determined in advance.

At the time I made my report there was but little data available, and there is little more now, but from a personal inspection on the ground I then concluded that when it became necessary to purify an impure water for domestic uses it would be safer and cheaper to take the water necessary to supplement the Springbank supply, from the Thames above the city.

I further reported that in my opinion about half a million gallons of spring water could be collected between Byron and Kilworth, and less than one

million from all of the springs above Komoka bridge.

To develop a large hydraulic pumping power on the river near Kilworth with an auxiliary steam plant would prove an expensive undertaking.

For the small amount of water required to supplement the Springbank supply, I believe electric power or even gasoline would be much cheaper than the hydraulic steam power. This scheme would also involve another main from the reservoir to the city, and another engine at Springbank. I consider this scheme altogether too large, and the quality of the water such that filtration might be necessary.

Fire Service.

Since 1903 several serious conflagrations have demonstrated the necessity of better fire protection in the congested districts of cities and towns, as well as the importance of fire proof construction. In the Baltimore fire of February, 1904, and in the Toronto fire of April following, the losses were estimated in millions of dollars.

As a result of their losses the present requirements of the fire underwriters are quite different from those of 1903. In the independent fire system, described in my 1903 report, only 100 pounds pressure was to be provided at the hydrants, with a pumping capacity of eight million gallons per day. The underwriters now demand a pressure of 200 pounds at the hydrants, and pumps of much larger capacity. This represents pipes of greater thickness than formerly calculated upon, and doubling the power of the pumping machinery. Furthermore, my estimate of \$170,000 in 1903 for an independent low-pressure fire system would probably now be increased to \$200,000, owing to the advanced cost of labor and materials.

By my original scheme steam fire engines were to be employed to give any increased pressure desired at any point.

High-Pressure System.

The high-pressure fire system has been evolved from the fireboat system, adopted a few years ago at Philadelphia, Milwaukee, Cleveland, Buffalo, New York, and other places. In 1903 there was not what is known as a high-pressure fire system in Canada or the United States. The first important use of the kind was installed at Philadelphia, the supply being taken from the waterfront. The Baltimore and Toronto fires came at an opportune time for the underwriters to urge upon municipalities with inefficient fire protection the advisability of erecting a high-pressure system, inasmuch as they have two complete systems in the United States that are completed and in operation, and several more in course of construction. In Canada, Toronto and Winnipeg are now installing high-pressure systems that may be completed in 1907.

London Fire Pressure.

A standard fire stream, as defined by the underwriters, requires 200 gallons per minute through a 1 1/8-inch, plain nozzle, with 50 pounds' pressure at the hydrant when running.

In London the pressure at the central fire station decreased from over 80 pounds when the works were completed in 1873 to 60 pounds in 1903, owing to the increased consumption.

The pressure is now quite too low for proper fire protection by attaching hose to the hydrants, and the mains in many parts of the city are not of sufficient size to convey the requisite water to supply steam fire engines.

To materially increase the pressure in the existing pipe system, by erecting a pumping station on the conduit line from reservoir, old services, and plumbing, and cannot be thought of.

To improve your fire protection (which is now entirely inadequate), three schemes may be considered:

1. Lay an additional large main from the reservoir to the city, several larger mains in the city, and pump from the mains with steam fire engines as at present, in which case another pump (Continued on page five.)

JAPANESE AGAIN ROUSED

Tokio, May 30. — The Asahi this morning in its leader, emphasizes, in carefully-guarded words, its opinion of the absence of sincerity on the part of the San Francisco municipal officials to protect the treaty rights of Japanese residents, and insists on the necessity of approaching the Washington Government with a demand that decided measures be taken to exterminate the source of persecution against Japanese citizens.

Points Made by Engineer Chipman.

The present spring water supply is 3,800,000 gallons per day in dry weather, and the average daily consumption 90 gallons per consumer.

By metering 50 per cent of the services and installing a separate high-pressure fire-fighting system, which may be drawn upon for street watering, industrial, and other purposes, a saving of 1,100,000 gallons daily will be effected.

The present Springbank supply would then be ample for 57,000 people, and there would be no need of securing additional water for eight or nine years.

When more water is needed, the springs between Byron and Kilworth, which may be made to flow by gravity to the pump-house at Springbank, will supply 8,000 people.

The Cronyn-White springs on the North Branch will supply 10,000 people.

A total population of 75,000 may therefore be supplied by spring water at a reasonable cost, if meters be adopted, and river water used for fire-fighting, street watering, and industrial purposes.

At present 800,000 gallons per day of spring water are wasted through the carelessness of householders and through leaky plumbing fixtures.

A separate high-pressure system for fire protection in the congested district of the city, using river water, would cost \$300,000, and would furnish a pressure of 250 pounds at the pump-house, as required by the fire underwriters.

A larger percentage of the cost of this system should be borne by the owners of property in the section benefited than by the outlying districts.

Fire protection can be best given in the congested business district by an independent high-pressure system.

The cost of meters would be \$15 each, and the annual charge, including interest depreciation, repairs, and reading, would be \$2 per year each. The water saved, if sold at 6 cents per thousand gallons would pay the annual charges for the entire meter system.

SAYING FAREWELL TO IRISH BILL CITY IS RIDDEN OF UNDESIRABLES

The Obsequies Being Performed Today in British Cabinet Meeting.

London, May 29.—The situation resulting from the rejection of Mr. Birrell's Irish council bill by the Dublin convention continues to be the uppermost topic of discussion in political circles in the United Kingdom. As forecasted in these dispatches, the measure is in its death throes, and it is believed in authoritative quarters that as a result of the prolonged cabinet meeting today, Premier Campbell-Bannerman will formally perform the obsequies on it.

Bound up with the fate of Mr. Birrell's bill is the future of Sir Anthony Patrick MacDonnell, under secretary to the lord lieutenant of Ireland, whom the Nationalists consider responsible for the fulfillment of many of the government's Irish promises, and whom they are determined to oust from office by every means in their power. It is an open secret on the other hand, that Sir Anthony is extremely anxious to retire, and it is practically certain that he has tendered his resignation. It is known also that the Government is anxious to retain the services of the under secretary, and it is thought probable that he will yield to ministerial pressure for the present, and only retire when things have quieted down. He will then receive an important appointment in India.

The Irish Reform Association, of which Lord Dunsany is president, is the latest organization to criticize adversely this unhappy bill. At a meeting of the association held today, a resolution was passed declaring that the measure ignores legislative functions altogether, that it did not take into account the question of financial relations or precedent, and that it was generally absolutely inadequate.

SETTLES FOR \$15,000

"Lady Flo" Waives All Claim to Delaval Beresford's Estate.

El Paso, Texas, May 30. — Flora Wolff, commonly called "Lady Flo," a negress who set up a claim against the estate of Lord Delaval Beresford as his common law wife, yesterday accepted \$15,000 devised to her by the will of Lord Beresford, and an additional \$5,000 and waived all claims to the estate. She certified that she was never, either in law or in fact, the wife of Lord Beresford.

BIG BAIL DEMANDED

Stephens Must Furnish \$5,000 or Remain in Jail.

[Special to The Advertiser.]
St. Thomas, May 30. — In the case of Murray Stephens, Washburn engineer charged with manslaughter in connection with the collision with a C. P. R. train last August, resulting in two deaths, Police Magistrate Hunt this morning fixed the amount of bail at \$5,000. It is likely Stephens will remain in jail.

WEATHER NOTES.

Since yesterday morning rain has fallen over Manitoba and the Maritime Provinces, and scattered showers have occurred in Alberta, Saskatchewan and Quebec. The weather continues warm in British Columbia, while elsewhere the temperature remains for the most part unseasonably low.

UNIQUE SERVICE AT CONFERENCE IN HONOR OF VETERAN CLERGY

Marked Fiftieth Anniversary of Their Ministry—The First Draft of Stations.

[Special to The Advertiser.]

Goderich, May 29.—The ministerial session of the London Conference opened this morning at 9 o'clock.

The president of the conference, Rev. David Rogers, presided.

The secretary of the transfer committee reported that Rev. George F. Salton, Ph.B., Rev. James Charlton, and Rev. John Lawrence had been duly transferred into this conference.

The number of ministers now in the conference roll totals 259—about half of whom are present.

The president nominated the following as members of a committee on conference realignments: Dr. Gundy, S. Bond, George Jackson, S. J. Allin, J. H. Locke, E. Medd, A. G. Harris, W. Kettlewell, T. J. Snowden.

Rev. Dr. Langford, of Stratford, who has been in the ministry for 50 years, made application for a superannuated relation, which was granted.

Rev. Dr. Thomas Griffith, of St. Thomas, also requested superannuation for one year.

Rev. H. E. Kellington, B.A., resigned his position as an ordained minister, owing to ill-health.

Admitted to Conference.

The following made application for admission into the conference from other churches: Rev. J. E. Cook, from M. E. Church in the United States; Rev. H. Watson, from the Baptist Church; J. H. Mundy, M.A., from the United Brethren.

Conference recommended the ordinand, continued on page eight.

CAR SHORTAGE MAY BOOST COAL PRICES

At Present, However, London Dealers Have a Plentiful Supply.

Coal prices in Montreal and other places are soaring.

Lack of shipping facilities. It is claimed, is curtailing the supplies, though there is an abundance of coal at the mines.

In London the dealers have a plentiful supply, but they claim that if the car shortage keeps up a serious scarcity is quite possible.

In some places consumers are laying in large stores of both hard and soft coal for next season, fearing that the shortage of cars will affect prices then.

BRIGHT OUTLOOK FOR WESTERN CROP

Dr. Saunders Wires That Conditions Not as Bad as Has Been Reported.

[Special to The Advertiser.]

Ottawa, May 30.—A telegram received this morning from Dr. Saunders, director of experimental farms, indicates that the crop prospects of the west are not as bad as have been reported. Dr. Saunders, who is now making a tour of the west, and will go as far as the coast, telegraphs as follows:

"Indian Head, Sask., May 29, 1907.—Have been from east of Winnipeg to Indian Head, Sask. Season very backward; some farmers still sowing. Very little now going in, mostly oats and barley. Most of the wheat now two to three weeks in ground is well up, germination strong, and even young plants are two to four inches high, with strongly-developed roots. Weather favorable. Growth very rapid, with still fully one hundred days and more of growing season before frost. Wheat now up should mature before injured. Wheat in Manitoba probably less in area than last year. Saskatchewan, more of oats, and barley largely increased area. (Signed) Wm. Saunders."

The Chinese gunboat Sun-Hong, having on board the Fifteenth regiment of Chinese troops, has sailed from here for Swatow, to defend that city against a possible attack on the part of the rebels.

BRITAIN'S CONGO STAND SCARES KING LEOPOLD

Belgian Monarch's Now Willing That Parliament Should Annex.

Brussels, May 30.—The defining in the House of Commons by Foreign Secretary Grey, of Great Britain's attitude on the Congo question, has had the effect here of hastening the elaboration of the Congo annexation bill. This bill will be ready very shortly now, and the Government will call an extraordinary session of the chamber for its discussion.

It is generally understood in political circles that King Leopold has concluded many points, notably the control by parliament of the Congo budget. His majesty has had frequent consultations with the minister of justice on the subject of the Congo, and it is declared in official circles that the members of the cabinet are in complete accord on the question.

FATAL BONFIRE.

Toronto, May 30. — Five-year-old Edith Newman, Harrison street, who was burned at a 24th of May bonfire and taken to the Sick Children's Hospital, died there yesterday afternoon.

HON. MR. SIFTON BACK.

Ottawa, May 30.—Hon. Clifford Sifton returned this morning from England, where his name was connected with the proposed East Atlantic and Pacific service.

HON. MR. EMMERSON ON THE STAND

Strongly Denies the Charges of Immorality,

NEVER EJECTED FROM A HOTEL

Tells of Visiting Old Friends at St. Lawrence Hall—Defense Counsel Cross-Examines.

[Special to The Advertiser.]

Fredericton, N. B., May 29. — Hon. Mr. Emmerson was called to the stand in the Gleason libel case this morning and told his version of the St. Lawrence Hall episode. He went to the hotel at 7:30 to look for a friend, a Mr. Peters. This was in June, 1906. In glancing over the register he noticed the name of the wife of a constituent, and a friend of hers. He went to their room, and not having had supper, invited them out to a restaurant with him.

They had supper together at the Oxford, and he afterwards returned to the hotel with them. Their room was in the front of the building, and his in the rear of the building. After bidding them good-bye he returned to his room, smoked for a while, then retired and fell asleep.

Aroused by Ladies.

He did not know how long he had been asleep, when he was aroused by a knock at his door, and, opening it, found the ladies there. He first dressed himself and then admitted them. One was very much agitated, and stated that they had been insulted by a porter and were bound to leave the hotel. He tried to quiet them, but did not have much success. The lady whom he had known since girlhood was not anxious to leave at that hour. He inquired into the trouble, and learned from one of the porters that there was no occasion for the lady to leave. The porter partly apologized for the conduct of another porter.

He finally told the ladies that if they were determined to leave he would accompany them, as he could not allow them to go out alone at that hour. They finally left and went elsewhere.

Witness left next morning for Ottawa, being joined at the Windsor street station by Hon. Mr. Lemieux.

One of the ladies was a woman of irreproachable character, whom he had known since childhood, and he believed both women were of the highest respectability.

He had been attending closing exercises at Acadia College some days before and left Dorchester accompanied by his mother, sister and daughter. At Montreal he was joined by another lady who accompanied them in his private car. At Lewis another lady and her mother joined the party and at Moncton he was joined by another lady. The Lewis ladies and the Moncton lady left at Montreal, while the rest of the party went on to Ottawa. It was the 10th of June he returned to Montreal.

Cross-Examined.

Mr. Hazen, before beginning cross-examination, showed Mr. Emmerson his signature on register, which he recognized. He was assigned room 137.

Under cross-examination Mr. Emmerson stated the Moncton lady mentioned was Mrs. Geo. C. Allen, wife of the general baggage agent of the I.C.N.R. Mrs. Bouthinier, who got on at Lewis, was a friend of Mrs. Allen. He could not say he heard the ladies while on the car say that they were to stop at St. Lawrence Hall upon arrival at Montreal. When he saw the names of Mrs. Allen and Mrs. Bouthinier on the register he went to their room accompanied by a bell boy. It was 10:30 when they returned to the hotel from the restaurant. It was midnight when he left the hotel with the ladies. He denied that the porter came to the ladies' room when he was there and found it in darkness, or that they had been ordered to make less noise or they would be ejected. He gave one of the ladies money to pay his bill because he wished to finish dressing. He did not know that one of the ladies was a friend of his. They went to the Albion after leaving the St. Lawrence Hall, where they were assigned rooms without registering.

STEAMERS ARRIVED.

May 29. Reported at. From:
Oceania.....New York.....Liverpool
Laura.....New York.....Tientsin
Laurier.....Boston.....Manchester
Haverford.....Guantanamo.....Philadelphia
Pretorian.....Glasgow.....Montreal
Montclair.....Liverpool.....New York
Carmathia.....Glasgow.....New York
Graf Waldersee.....Cherbourg.....New York
Wassau.....Glasgow.....New York
Bastille.....Father Point.....Glasgow
Mackenzie.....Father Point.....Glasgow
Trade.....Father Point.....Glasgow
Mount Royal.....Father Point.....Antwerp