POOR DOCUMENT

MC 2033



# EXTEND SYSTEM TO LOCH LOMOND AT A COST OF A LITTLE OVER $168,000; THAT IS THE EXPERT'S SENSIBLE ADVICE

## Clear and Exhaustive Report Submitted by F. A. Barbour, C. E., on St John Water Supply--Must Have Higher Pressure—Detailed Statement of Proposed Extension Via Lake Lattimer--Annual Charge to Provide the Extension Would Not Exceed $10,000, or Less Than Half the Increased Insurance Charge.

The water and sewerage board met Friday and heard the report of F. A. Barbour, C. E., on the water supply of St. John. It was very exhaustive and recommended extension of the system to Loch Lomond, at a cost estimated at $168,289. The board was very favorably impressed by the clearness of the report, and will have it printed for distribution. Mr. Barbour made some verbal explanations, and answered questions put by members of the board.

While Mr. Barbour's work is completed, the board will take no further action until after the report has been printed and distributed. Then the whole question will be fully discussed, and the council will decide whether to carry out the recommendations of the report or adopt some other expedient.

Mayor White was in the chair,and there were present Aldermen Holder, Frink, Brannen, Hamm, Carleton, Macrae, Bullock, Maxwell, Tilley, McGoldrick, Christie, Lewis, Supt. Murdoch, Director Cushing, Engineer Barbour, Recorder Skinner, Common Clerk Wardroper.

Mr. Barbour read his report and laid plans and profiles on the table. The report set forth the reason for the present investigation, chief of which is inadequate fire protection. It then gave a description of the present water supply, the condition and capacity of the present mains, and distribution system, and made some recommendations, including the following:

"Certain improvements in the distribution system are suggested by the investigation—the object being to provide better pressure in the section along Carmarthen street, where a large amount of the piping is four inches in diameter, and along the water front from Market Square to Duke street. The old four inch pipes laid in 1858 are no better actual capacity than a new two inch pipe, or in other words, they have a friction loss sixteen times that of a new four inch pipe. It is, therefore, recommended that a ten inch pipe be laid in Carmarthen street from Leinster to Brittain, and in Duke street from Carmarthen to Prince William street; also that a ten inch main be laid from Pond street to Market Square and the ten inch in Prince William street, extended to Duke street. It is not intended that this work shall be immediately undertaken, but that the suggested improvements would best remove the present inequalities of fire service,and that when any expenditure is decided upon, it should be along these lines."

The report discussed the necessary fire pressure and number of streams, and investigations made along the line; and then dealt with future consumption under increased pressure. The following significant statement was made:

"The amount of water now used is three times as great as that necessary for the supply of every legitimate domestic and manufacturing want. Leakage through the mains and careless waste are responsible for twothirds of the present daily consumption."

The report advised against metering the system, which would be expensive and unsatisfactory in a city with the severe winter climate of St. John.

It was pointed out that what is needed in the system is greater pressure. There is water enough; but not enough pressure, which can only be got by elevation. This cannot be got from the present reservoir, and the report, after discussing various propositions points out that recourse must be had to Loch Lomond. The report then proceeds:

There is no need of any discussion in order to prove the ability of Loch Lomond to meet the requirement of quantity, quality and elevation. It is ample in quantity for the supply of a city five times the size of St. John; the quality of the water is practically ideal, and the elevation of the lake—300 feet above datum—is such that with conduits of economical size the pressure necessary for a modern system of fire protection can be furnished. The only drawback to the use of Loch Lomond is the question of damages to waterpower rights on the Mispec river for diversion of water. While this is of considerable moment, it is believed that by proper handling of the matter it can be minimized to a point where it cannot stand as an argument against the adoption of this source.

Where a right to the entire flow of the stream is taken, the question of damages involves numerous factors not capable of precise estimation, and the results depend many times upon the relative ability of opposing counsel rather than on the actual merits of the case. Where, however, a right to a definite number of gallons is obtained, the damage may be estimated more closely and the taker usually receives value for the actual money paid out in damages.

Instead, therefore, of merely obtaining a right to take water from Loch Lomond, it is believed that the authority should be limited to the diversion of 7,500,000 gallons per day—except during the months of excess flow, when no damage would result to the owners of mill privileges. If, at the same time, such additional storage as can be economically developed in Loch Lomond and as will be furnished by Lake Latimer, be used to compensate the water powers in part for the water diverted, it is believed that the actual damage under these conditions will not be so large as to seriously militate against the adoption of this source.

It will be readily appreciated that an estimate of the probable damage would be of no value in this respect—in fact, such is impossible without a more detailed investigation than has been made. But it can be stated without hesitation that, including any reasonable damage for diversion of water, Loch Lomond is the cheapest source from which water in the desired amounts and at the necessary pressure can be furnished at St. John.

The estimated cost of the utilization of Loch Lomond—outside of the damages to water rights—is $168,289.

Summary Report and Conclusions.

It has been concluded:

That be present mains, because of age and incrustation, have a friction factor three and one-half times that of a new pipe.

That the distribution system has in general a friction factor five times that of a new pipe.

That for adequate fire protection, fifteen streams of 210 gallons each, with a hydrant pressure of ten pounds, should be furnished at elevation 40.

That with this higher pressure, the use of water will, by increased leakage, probably reach 150 gallons per capita daily, and that consequently any improvements in the supply must be based on a capacity sufficient to furnish 50,000 people with this amount per day, or a total of 7,500,000 gallons.

That a remodeling of the distribution system cannot be undertaken, and that consequently the pressure at Marsh Bridge must be that necessary to furnish the desired number of streams under present conditions of loss by friction, and must therefore be not less than 95 pounds during the period of maximum draft.

That this pressure makes necessary a source not lower than elevation 230.

That this cannot be obtained by any developments of the present source or from Lakes Douglas, Donaldson, Long or Latimer.

That consequently, if a gravity supply is to be obtained, it must be from Loch Lomond.

That by going to Loch Lomond a sufficient elevation can be obtained to enable the desired pressure to be furnished through the present mains ad distribution system.

And it is recommended:

That Loch Lomond be adopted as the source of supply.

That instead of taking an indefinite right to water in this source that application to the Legislature for a right to take 7,500,000 gallons daily be made.

And, finally, that in view of these recommendations, precise surveys of the several routes be at once taken and a careful investigation made of increased storage possibilities in Loch Lomond.

In closing, we desire to express our obligation to various members of the Water Board and to heads of the different city departments. We are particularly indebted to Mr. Murdoch. Superintendent of the water department, who, by his knowledge of local conditions and by the courtesy and patience with which he has placed the excellent records of his department at our dsposal, has greatly aided in the preparation of this report.

Respectfully submitted,
F. A. BARBOUR.

Nine appendices, containing a mass of information in support of his statements and conclusions, accompany Mr. Barbour's report. One appendix deals with the condition of the water pipes and the amount of water used daily; another shows the consumption of water for twenty-four hours, with the relation of each hourly consumption to the average hour. In the the latter the point is made that there is a large leakage through the pipe system or through plumbing fixtures. The following section of the report will be read with interest:

Appendix G.

/Loch Lomond as a Source of Supply.

The watershed of Loch Lomond has a land surface of 37.8 square miles. The area of the water surface is 3.94 square miles. The quality of the water is in every way desirable. The only drawback to the adoption of this source is the question of damages to the water power on the Mispec river because of the diversion of water. This phase of the problem will be considered in another place. The present discussion will be confined to the best method of conveying Loch Lomond water to St. John.

Various routes have at different times been suggested, notably via Lakes Douglas and Donaldson and va Lake Latimer—these lakes beng used as distributing reservoirs in the conduit lines to the city. St. John has no rights in either Lakes Douglas or Donaldson, but fifty years ago it acquired rights in Lake Latimer. This lake has thirty times the available storage of Lake Douglas and four times that of Lake Donaldson . In all hydraulic work it is advisable to keep the conduits as near the hydraulic gradient as possible and so reduce the pressure as to make the use of a masonry aqueduct feasible. If the connection of Loch Lomond with the city is by way of Lake Latimer, the conduit can be economically kept at a high level and brought within two miles of the present pipes at Little River reservoir with but slight pressure on the structure. It is believed, therefore that the route via Lake Latimer is the best obtainable.

The carrying of Loch Lomond to the city involves the provision of head works on the Mispec, a conduit between the Mispec and Lake Latimer, the use of this lake as an intermediate reservoir, and a conduit from it to the present pipes at Little River reservoir.

As to the necessary size of the aqueduct, it is believed that the portion between Lakes Lomond and Latimer should be figured on a maximum daily flow of 17,500,000 gallons—7,500,000 gallons of this as the future daily draft of the city, and the remaining 10,000,000 as the amount necessary to fill the available storage of 600,000,000 gallons in Lake Latimer in sixty days, or during a period when there will certainly be an excess flow in the Mispec. The section between Lake Latimer and the present pipes should be based on a capacity of about 12,000,000 gallons—this to cover the daily draft of 7,500,000 and a fire protection of 3,100 gallons per minute.

The actual capacity of the aqueduct between the Mispec and Latimer depends not on its gradient, but on the difference in elevation between the water in the two lakes. It is proposed to construct a conduit with an area of about 12.75 square feet; the capacity of which under different conditions is shown in the following table:

Table No. 12.

Table Showing Capacity of Proposed Aqueduct Between the Mispec and Lake Latimer Under the Conditions of Varying Levels in the Lakes.

| Elevation at Mispec River. | Elevation at Lake Latimer. | Capacity of Aqueduct. Cubic ft. per sec. | Gallons per 24 hours. |
|---|---|---|---|
| 300 | 300 | 00 | ..... |
| 300 | 299 | 18.83 | 19,900,000 |
| 300 | 298 | 26.60 | 14,300,000 |
| 300 | 294 | 46.80 | 25,200,000 |
| 300 | 290 | 60.50 | 32,600,000 |
| 300 | 285 | 73.50 | 39,600,000 |

Between Lake Latimer and the present mains at Little River reservoir a pipe line under pressure might be laid for the entire length, but as the cost of such a main would be about equal to that of a masonry conduit, it is believed better to follow the side hill for a distance of 7,400 feet on the hydraulic gradient with a masonry aqueduct of practically 39 inches diameter on a grade of one foot in 1,250 feet. This conduit will have a capacity of 14,000,000 gallons per day, or more than sufficient to meet the necessary basis of desiga as above stated.

From the gate house at Station 74 to the present pipes at Little River reservoir it is proposed to use a 33-inch pipe, which, with a total friction loss in the 10,200 feet of its length of 15.5 feet, will have the same capacity as the 39 inch masonry aqueduct. The pressure under which the pipe will operate will vary from a few pounds at its upper end to about 65 pounds at its connection with the present pipes.

In a previous study of the conduit problem between Loch Lomond and St. John an intermediate reservoir on Hazen Brook was proposed. This is here omitted, as its worth is not found to be commensurate with its cost. The value of water stored near the point of fire draft is thoroughly appreciated, as is shown in another place, but a reservoir on Hazen Brook would not serve the purpose by which such an accessory is usually justified. Its value would only be in case of accident to the conduit between Lake Latimer and its location, and with the aqueduct constructed as proposed there is little risk of any derangement. Should any reason for the disuse of this portion of the work arise, the city could temporarily be supplied from the present source, which will remain connected with the mains to the city. If this source has been sufficient up to the present time, it certainly ought to be capable of supplying the city for the few days necessary to repair any accident.

It is proposed to construct the aqueducts between the Mispec and Lake Latimer and between Lake Latimer and Station 74 of concrete steel, a comparatively recent and thoroughly up-to-date development in which a meshwork of steel is embedded in the concrete. Its cost will be about two-thirds that of a brick conduit. Furthermore, as these aqueducts operate under the head due to the depth of the water in the lakes and will be therefore subjected to an outward pressure at times as high as eight pounds per square inch, this type of construction, with its greater ability to stand tensile stress, is better than brick. The co-efficient of friction is also lower than brick, and the capacity for the same diameter inversely greater.

The cost of the basket sectioned aqueduct between the Mispec and Lake Latimer is estimated as follows:

| | |
|---|---|
| Excavation—6,200 feet at $1.20 per foot | $ 7,440 |
| Concrete steel aqueduct—6,200 feet at $4 per foot | 24,800 |
| Rock excavations—800 cubic yards at $3 per yard | 2,400 |
| Tunnelling—800 feet at $20 per foot | 16,000 |
| Underdrainage—7,000 feet at 60c per foot | 4,200 |
| Land damages | 250 |
| Clearing and grubbing | 300 |
| Total | $55,390 |

The cost of the 39-inch aqueduct between Lake Latimer and Station 74 is estimated as follows:

| | |
|---|---|
| Excavation—7,400 feet at $1 | $ 7,400 |
| Concrete-steel aqueduct—7,400 feet at $3.25 | 24,050 |
| Underdrainage—7,400 feet at 40c | 2,960 |
| Land damages | 400 |
| Clearing and grubbing | 1,000 |
| Gate house | 1,500 |
| p0.mmlvbgkq mfwy mfwymf | |
| Total | $37,310 |

For the remaining distance between Station 74 and the present mains at Little River reservoir it is proposed to use wood stave pipe 33 inches in diameter. This type of conduit has been used with good results in the West for power and irrigation works. Properly designed and constructed, it is capable in every way of meeting the requirements of a municipal supply main. The factors necessary for success are a careful selection of clear stock which should be cut into staves with concentric faces and radial edges, and of such thickness that the wood will at all times be thoroughly saturated by the outward water pressure. The bursting stress is taken up by round iron bands, spaced in proportion to the pressure carried. Wood continuously water soaked will last indefinitely, and the life of the pipe is determined by the life of the bands, which should be covered with some kind of approved protective paint.

In New Brunswick, where wood can be obtained at a relatively low price, this type of conduit offers particular advantages in point of cost, which, for the 33-inch pipe, is estimated as follows:

| | |
|---|---|
| Excavation—9,600 feet at 80c. per foot | $ 7,680 |
| Embankment—600 feet | 500 |
| Wood stave pipe—10,200 feet at $3.05 per foot | 31,110 |
| Concrete reinforcement | 600 |
| Culvert | 1,200 |
| Clearing and grubbing | 1,500 |
| Gate house and gate | 2,000 |
| Land damages | 600 |
| Total | $45,290 |

The capacity of a wood-stave pipe properly built is 18 to 20 per cent. higher than that of cast iron of the same diameter; or, in other words, a 36-inch iron pipe would have to be used for the same friction loss as a 33-inch wood. The cost of an iron pipe of this diameter is estimated at $8 per foot laid. The use of the wood stave pipe therefore saves, in the 10,200 feet between Station 74 and Little River reservoir, about $36,000, an amount which, at 4 per cent. interest, will in twenty years more than equal the original cost of the wood pipe. It therefore follows that if this wood pipe is good for twenty years it will have justified its use. As its life is, under ordinary conditions, much greater, the advisability of adopting this type of conduit is evident.

In taking the water from Loch Lomond it is proposed to construct a dam on the Mispec River about one mile below the present outlet of the lake, impounding in this way 60,000,000 gallons of water, to which the name of Lake Robertson has been given. The dam, which will be 500 feet long and 10 feet high to the water crest, will be founded on rock. A waste weir 200 feet long in the centre of its length has been figured as necessary to discharge the maximum flood flow of the Lomond watershed. Its capacity, with a depth of two and one-half feet on its crest, will be equivalent to a run-off of 100 cubic feet per second per square mile of watershed, which should be ample provision for the most extreme floods.

At the dam a gate house will be constructed to govern the flow in the conduit to Lake Latimer and also the compensation water to the Mispec. The cost of this dam is estimated as follows:

| | |
|---|---|
| Excavation | $1,000 |
| Concrete masonry | 9,000 |
| Gate-house, intake, etc | 3,200 |
| Dike | 500 |
| Clearing and grubbing | 1,000 |
| Land damages | 300 |
| Total | $15,000 |

The total cost of the work necessary to convey Loch Lomond water to the present pipes at Little River reservoir is as follows:

| | |
|---|---|
| Lake Robertson dam | $ 15,000 |
| Aqueduct, Mispec to Latimer | 65,390 |
| Aqueduct, Latimer to Station 14 | 37,310 |
| Pipe line station 74 to present mains | 45,290 |
| | $162,990 |
| Add 10 per cent. for engineering and contingencies | 15,299 |
| Total | $168,289 |

It should be noted that these estimates are based largely on incomplete surveys and information gathered, for the most part, 20 years ago, and while from personal inspection of the ground, it is believed that the routes selected are the best obtainable and that the figures given above are generally correct, accurate surveys and studies should be at once begun, should the project recommended be adopted.

Mayor White expressed appreciation of the thoroughness of the report It would be necessary to give the details very careful consideration, and he would suggest the publication of the report in pamphlet form for distribution.

Alderman Macrae agreed with this view, and moved that tenders be called for 500 copies of the report, with appendices and maps. This was adopted, and the mayor said tenders would be called for at once.

Mr. Barbour discussed various sections of the report, giving facts to show the inadequacy of the present system, and reasons for a number of his recommendations. He pointed out that if his plan were adpoted the annual charges would be not over $10,000, while the reduction in annual insurance charges would be at least two and a half times that amount. As a matter of economy, therefore, a gravitation system should be procured. Under that system, also, the fire engines would only be needed in case of a very large fire.

There was some discusison on the question of damages in connection with the Mispec pulp mill, and it was pointed out that the city had a case for damages against the mill people for having without authority deepened the outlet and lowered the level of Loch Lomond about three feet.

Mr. Barbour pointed out that before any work was undertaken there should be a systematic and thorough survey. Studies should be at once begun on the flow of water in the Mispec, also a careful investigation made of the natural high and low water marks in the lake together with the possibility and probable cost of increasing the effective storage.

# CHEERFUL REPORT ON EXHIBITION

## Montreal and Lewiston Horsemen Will Take Part in Horse Show.

## DEMAND FOR SPACE.

### Ontario and Quebec Inquiring for Space for Live Stock Exhibits—Sir Wilfrid Laurier May Visit the Fair—A Great List of Special Attractions.

The directors of the Exhibition Association met Friday night to hear the report of their executive committee and to discuss the advisability of arranging for the holding of a Dominion Exhibition in St. John in the near future.

There were present R. B. Emerson, Lt. Col. Markham, T. H. Estabrooks, A. O. Skinner, C. B. Allan, H. Gallagher, Dr. G. A. Hetherington, R. R. Patchell, F. A. Dykeman, W. F. Burditt and W. W. Hubbard.

Lt. Col. Markham, T. H. Estabrooks and Dr. Hetherington were appointed a committee to go into the matter of a dominion exhibition and report back to the board.

The president and treasurer were empowered to make an overdraft to carry on the work of the association and the following report of the executive was laid before the board:

Gentlemen,—Your executive committee beg to report that, since authorized by you to proceed with the work of this year's exhibition, they have carried forward preparations as expeditiously and economically as possible. The results to date have been very satisfactory.

The demand for space in the industrial building has been so keen that the floor space today is practically all taken and a number of exhibits are yet to be placed. In the live stock and agricultural departments there are already a number of entries and many enquiries from Ontario and Quebec points.

Special efforts have been made this year to advertise the show thoroughly; 5,000 prize lists have been distributed; 98,000 envelopes have been sold to the business men in St. John, each one advertising the exhibition.

A school children's wood competition has been arranged for and an announcement of it has been sent to every child attending school in the province.

Our newspaper advertising is placed in 73 papers upon very favorable terms. The press of the provinces is giving its usual kind co-operation for which our association is much indebted.

A new departure has been made in the line of amusements. Instead of employing special out-door acts to be placed before the grand stand the money will, this year, be used for a special out-door horse show. A large number of horsemen interested, have kindly assisted us in preparing a prize list and have promised to further co-operate with us in making this part of our programme useful and entertaining.

Exhibits in this department will be made by Messrs. Learmont and Pearson of Montreal, the Sanborn estate of Lewiston, Maine, and other outside exhibitors.

The buildings belonging to the association are being put in good repair and we are glad to report that but a small expenditure is necessary. The city is thoroughly repairing the roofs of the industrial building.

In granting us the use of their grounds and drill shed the department of militia has stipulated that we shall place an amount of insurance which at the increased rates now in force makes our insurance liabilities upwards of $400 for military property alone.

We feel satisfied that the amusement features secured this year will be better than ever before.

F. G. Spencer, of this city, has undertaken to place a list of attractions in our large amusement hall which will, we feel sure, be a great improvement on anything we have hitherto had.

In our small hall we will have the Miester Glee Club of London, England, for four engagements and a continual moving picture performance by the American Vitagraph Co. From all these amusements we will get a percentage of the gross receipts.

Our fireworks features cost the same as last year but a better progress is assured. Season tickets will this year be sold from the 1st to 16th Sept., good for 13 admissions at $1 each.

His Hon. the Lieut. Governor has consented to open the exhibition on Saturday evening, 17th September, and Sir Wilfred Laurier has promised that if his other duties permit he will be present on that occasion and give an address.

Taken altogether we feel that in no previous year were the prospects for a successful exhibition brighter than at the present time.

Respectfully submitted,
R. B. EMERSON,
President.

On motion the report was adopted and the meeting adjourned.

### Struck it Rich.

William Queen, father of J. M. Queen, manager of the Canada Life in this city, is working a claim in the far west to good advantage. The following item under the heading of "Mining notes" is taken from the weekly paper Alton Claim, of Alton (B. C.):—

"On July 30 Mr. Queen, while cleaning bed rock on his Spruce Creek property, picked up a solid gold nugget weighing 11 ozs. 16 dwts. Mr. Queen is making some excellent cleanups, and his total will greatly add to the year's output."

Druggists Selling Cream for Corns.

If your druggist does not keep "Quinples Corn Cream" we will send you a full size box for 15 cts. in stamps and corn cushions free. Dept. 6, Quinples Jury, Bowmanville. You should use this valuable discovery as it relieves all pain and removes the corn in 48 applications.

VALUE TO THE LAST FARTHING! A Clothing Specialty Always the Same.

WHY "M. R. A.'S UNRIVALLED $10 SUITS FOR MEN" STAND THE TEST.

Come Winter, Spring, Summer and Autumn these "Unrivalled" Suits for men are always abreast of the times in style, weight, color and finish. They are not a big stock which has to be sold out before a more up-to-date consignment is forthcoming, but a fresh, dapper speciality—one of the strong factors in placing M. R. A. Clothing in the coveted ranks of Reliability. At $10 they are always cheap, no matter what the surroundings circumstances may be.

Just at present the $10 Suits most popular are those in Blue and in Black Worsteds and Tweeds. They are dressiness itself and for the early fall, upon which we are entering, no more suitable garments can be procured. Some new styles have just been received, following closely the newest modes of the sartorial journals. As to workmanship, careful finish, good reliable trimmings and honest cloth value little need be said, for the hundreds of $10 "Unrivalled" Suits now being worn are their own testimonials.

THESE SUITS ARE SOLD EXCLUSIVELY BY US.
THEY ARE EVERY MAN'S CLOTHING, AND ALL KINDS OF MEN WEAR THEM.
Clothing Department, New Building.

MANCHESTER ROBERTSON ALLISON, LIMITED, - - ST. JOHN, N. B.

DOWLING BROS., 95 & 101 King Stree

New Autumn Dress Goods—A Large Showing of Fall Weights in Dress Goods and Su ing Cloth will be Found in our Dress Goods Department at This Early Date.

HOMMAT SUITINGS—A good heavy Suiting Cloth, 44 in. wide, comes in colors of Md. Grey, Dk. Grey, Blue, Grey, Navy Blue, Black, Bronze Green, Red, Black and Brown, at only 55c. yard.

ALL-WOOL VENETIAN TWILL SUITINGS—40 in. wide, regular 65c. goods, a special lot at a special price, 35c. yard. Colors—Lt. Fawn, Md. Fawn, Heather Brown, Med. Brown, Bronze Green, Red and Fawn Brown.

FANCY KNOPE CLOTH SUITINGS—Dark grounds with pretty Knope yarn knots in contrasting colors scattered over the surface. A stylish suiting, 42 in. wide, at 55c. yard.

FANCY TWO TONED TWEEDS—In very pretty colorings, dark grounds with over knot yarn broken plaids and stripes; the latest style in suiting cloth, 54 in. wide, at $1.10 yard.

FANCY WOOL FLAKE TWE SUITINGS—42 in. wide, at 50c. y A good variety of colors.

VENETIAN CLOTH SUITING— colors, at 60c., 90c., $1.10 and $1.50 y

BROAD CLOTH SUITINGS—In and new colors at $1.25 and $1.50 yar

BROAD CLOTH SUITING with W Flakes, 54 in. wide, at $1.35 and $1 yard.

(SAMPLES BY MAIL.)

DOWLING BROS.,
95 and 101 King Street.

# OBITUARY.

### Miss Lucy E Stephens.

Miss Lucy Eade Stephens died Friday at the residence of Mrs. F. T. Stephens, 45 Mount Pleasant avenue.

Deceased was 75 years of age and the daughter of the late Henry E. Stephens, of Bristol, England. She was the sister-in-law of the late Frederick T. Stephens. Several nieces and nephews of deceased are residents of this city.

### Mrs. T. E. Rogers.

The death occurred at noon Friday of Mrs. Rogers, wife of Thomas E. Rogers, the sexton of Germain street Baptist church. The deceased, who was aged 50, is a native of England, but before coming to St. John lived in Yarmouth for twenty-eight years. Her remains will be taken to Yarmouth today for burial. Besides her sorrowing husband she leaves four children, Mrs. Bayard Parker, Mrs. John Montgomery and Ethel and Clara Rogers.

### Mrs James Bowes.

The death of Mrs. Jas. H. Bowes, of Golden Grove, occurred at her residence Sunday after a lingering illness. A husband, seven daughters and five sons survive. The daughters are Mrs. Henry Crowley, Mrs. Paul Riley, Mrs. W. H. Nevins, Mrs. John C. Horrigan, Miss Edith, of Boston, Mrs. George Duffley and Miss Lucy, of Golden Grove. Of the sons, Vincent and Edwin reside in Boston; John in British Columbia, and Robert and James are at home.

### Mrs Eliza Holder.

The death occurred last Friday morning at the residence of George Younger, Union street, Moncton, of Mrs. Eliza Holder, aged 78 years, after a long illness. Death resulted from heart failure.

Mrs. Holder, who was a native of St. John, had lived in Moncton for the past thirteen years. Previous to this she had been a resident of St. John, where her husband died many years ago. Only one of the family survives, Mrs. George Younger, of Moncton.

### Mrs Louisa Burns.

Halifax, Aug. 14—(Special)—The death occurred here Saturday night of Mrs. Louisa Burns, widow of Capt. Geo. D. Burns, of Digby, and mother of C. T. Burns, of this city, but formerly of St. John (N. B.)

### Mrs Maria A. White.

Mrs. Maria A. White, one of North End's oldest and most respected residents, died Monday morning at her residence, 195 Main street, aged 82 years. Deceased, who was the widow of W. P. White, leaves six children: W. H., insurance agent, and Charles D., of this city, and S. L., druggist, of Caribou (Me.) The daughters are Mrs. A. M. Patterson, Mrs. George Springer and Miss Bessie P. White, all of this city.

### Michael Daley.

Michael Daley died suddenly at his home in Lower Cove Monday morning about 4 o'clock. He was 70 years of age but worked right up till Saturday. Deceased, who was highly respected, leaves a widow and two sons.

It will be remembered that on Sunday, August 7th, Mr. Daley gave his son, Michael in charge on a charge of assault. When he appeared in the police court to give evidence his left eye was badly discolored and he was bruised in other parts of his body. On account of the peculiar circumstances of the case Coroner Berryman may decide to hold an inquest to ascertain if the bruises received hastened the old man's death.

### John H. Butt.

John H. Butt, of Butt & McCarthy, Germain street, died Monday forenoon, after an illness of fully five years. For the last four months Mr. Butt was confined to the house. A native of Newbury, Southampton, England, Mr. Butt came to St. John in 1857, and learned the tailoring trade with his brother, the late Wm. F. Butt. For many years deceased has been engaged in business in St. John on his own account. He was an excellent citizen, any many friends in the city and in the parish of Lancaster, where he lived for a long time, will regret to hear of his death. Mrs. Butt and two daughters—Mrs. S. L. Reed and Mrs. W. H. Bustin—survive. Mr. Butt was a member of Union Lodge ,F & A. M.

### James Crangle.

Fredericton, Aug. 15—James Crangle died at midnight. He was prostrated a few days ago with a severe attack of Bright's disease, which caused his death. Deceased was 57 years old and leaves a wife and two sons—Howard and George. Fredericton Division, A. O. H., of which deceased was a member, will attend the funeral in a body tomorrow.

### W. D. Harrington.

Halifax, Aug. 15—W. D. Harrington, collector of customs at this port, died this morning. He was at one time M. P. P., representing Halifax county. Years ago he carried on a successful grocery business. He became collector of customs in 1880. Mr. Harrington was 70 years of age.

### Mrs. Joseph Clarke.

Moncton, N. B., Aug. 15—Mrs. Joshua Clark, aged 97 years, died this morning at the home of her grand-daughter M . A. Metzler. Deceased was born at River Hebert (N. S.), and leaves four sons and four daughters.

### Mrs Leman T. Stone.

Mrs. Stone, relict of Leman T. St died at the residence of her son, Stone, Tay Creek, York county, S day, aged 78 years. Other surviving and daughters are William Sto Fredericton; Leman Stone, of St. M Edward Stone, of Cross Creek; Mr McCrae, St. Marys, and Mrs. Melvi ford (Mass).

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