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full a discussion as possible at
earliest date.

Discussion on Jan. 17th.

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**MASONRY DAMS AND RETAINING WALLS IN GENERAL,
CONCRETE WORKS, ETC.**

BY CHS. BAILLAIRGE, M.A., F.R.S.C., M.CAN.SOC.C.E.

(To be read Thursday, Jan. 3rd, 1901.)

It must be admitted that "retaining walls" in Canada have had but a poor or short-lived record; unless it be argued that their durability should, in the interests of the working classes, not be too persistent. But, as an engineer, the writer can not admit this. He has been associated with the reconstruction of many of these walls, and has witnessed the failure of so many others as to be entitled to say a word on the subject.

The City of Quebec is preeminently one of retaining walls; many of its streets on the inclined or hilly frontage of the town having had to be supported on the down side to level them up to necessary grade.

These walls have almost without exception been made unduly thin and altogether too much so to withstand the then pressures against them, or the stresses liable to obtain thereafter.

The Des Carrieres Street wall of some 600 feet in extent, in rear of Dufferin Terrace, erected about 60 years ago, under Government control, stood its own for only 30 years, and was rebuilt again under Government superintendence and at Government expense, it being then an enclosure wall of the so-called Governor's Garden of the period. This second edition of the structure again gave way to the earth pressure from in rear of it, and was rebuilt or erected a third time within the last few years under the writer's term of office as City Engineer, and at the cost of the city.

The retaining wall of the old parliament site at the head of Mountain Hill has during the same period of 60 years been rebuilt not less than twice.

The same fate has overtaken the Artillery Street wall, the Dambourges Street wall; and most of those along the north side