

NOTES ON THE "QUEBEC GROUP."

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Out of the 12,000 feet or more of strata which form the much discussed "Quebec Group," there are several interesting escarpments and sections which have hitherto not received the attention they deserve. One of these escarpments is the Mountain Hill cliff, * which forms a portion of the heights over which the ramparts of the City of Quebec are built.

The only reference I can find, at the present time, to this special locality, is Dr. Ami's paper on "the Geology of Quebec and environs," published in the "Bulletin of the Geological Society of America," Vol. II., pp. 477-502, 1891, from which I quote the following. "Alongside and up the Mountain street, a bold cliff of conglomerate occurs, containing large boulders, imbedded in a shaly and calcareo-argillaceous paste, with an admixture of quartz grains. This deposit, as well as most of the exposures in Quebec city, deserves very special attention, and will no doubt afford interesting notes and material."

A close examination of the cliff immediately facing Mountain Hill House, on the lower part of the hill, shows it to be composed of a coarse grey nodular limestone; in places, bedded structure may be seen, while the principal portion, (which is the matrix of the conglomerate), is compact, and sometimes flinty, with seams of carbonaceous or bituminous matter.

This portion of the cliff is prolific in fossils, but they are chiefly fragmentary, and might readily be overlooked. This is probably the reason why in the early study of the geologic structure of the city portion of the 'Quebec Group,' these were included in the Levis division of the same.

No fossil remains had been found or observed in the Mountain Hill cliff until the summer of 1877, at which time the writer discovered a number of interesting species. In 1892, another opportunity was afforded me to examine that portion of the exposure immediately back of the Express office and adjoining the book-binding establishment. On that occasion there were found some remarkably well-preserved fossils,

*See Plate accompanying this and next paper.