Letterhead

THAYER'S HOTEL,

H. L. THAYER & SON, Proprietors.

LITTLETON, N. H., Oct 29 1879.

Principal Dawson

Dear Sir

I have recently had the pleasure of spending a few days with Mr Selwyn in examining the rocks of the old Quebec group near the Vermont border. Mr Selwyn's views are well known to you I presume and the facts observed while we were together were confirmatory of what he had seen elsewhere further north.

What I wish to speak of particularly is in reference to Sir William Logan. We had his 1847 report with us, and it appears that his statements there about the Stratton are correct. It must go as far south as West Farnham — a portion south than he has allowed in his 1863 report. What he says of the Sutton mountain anticlinal is more clear than its abridgement in 1863.

There are other faults also, which were better stated in 1849 than later.
I understand also that Logan investigated to some extent a prominent fault along the St Francis about Melbourne, Richmond Danville &c. which Mr Logan has since studied more carefully. Now as Sir. William discovered this fault, and its existence demolishes his ~~th~~ view of the succession of Levis, Lauzon & Sillery, would it not be proper to state in any notice of Logan — what I understood you were preparing — that he had discovered the fact overthrowing the theory of 1863, while he did not have time enough to extend his observations sufficiently to be printed. If he discovered this fault who demolished his 1863 theory of Levis at the bottom and Sillery at the top, he must have been satisfied that his earlier position of 1849 was the more correct — and to some of his friends he must have communicated this suspicion. If it were possible to obtain such a statement as having been made by him, whether

THAYER'S HOTEL,

H. L. THAYER & SON, Proprietors.

LITTLETON, N. H., 18

it were made orally, or by letters it would be fair to give Sir. William's memory the credit of it. And if nothing better can be ~~done~~ said than this — that he discovered a fault where the 1863 theory did not allow any, wh. when worked up shows the 1863 view is erroneous, — this will be to his credit — and it will please his old friends that he by this discovery put his successors into the possession of the ammunition which destroyed his own fabric. If our cherished notions must be upset, it is a pleasure for us to ourselves strike the fatal blow — rather than to have it done by others —

My own notion is that Sir. William would never have devised the 1863 succession of Levis, Lauzon & Sillery if he had been left to himself. His paleontologic

and mineralogical points led him astray;
His faith in them must have been very strong
to cause him to overlook the powerful
anticlinal which Logan traces from the
province line across the St Francis — &
which doubtless extends to Gaspé — to say
nothing of its occurrence through Ver-
mont and Massachusetts to the South.

Truly Yours

C. H. Hitchcock

FORMATIONS IN NEW HAMPSHIRE.

I. Stratified Groups.

		Thickness in feet.
CENOZOIC.	Modified drift, including kames, gravel, and sand deposits, Champlain clays,	250
	Glacial drift,	200
	Total Cenozoic,	450
PALEOZOIC.	Upper Helderberg (Vermont), 200, Lower Helderberg, 500,	700
	Calciferous mica schist,	4,800
	Coös group. Staurolite slate,	3,000
	Coös group. Mica schist, often stauroliferous,	3,300
	Coös group. Quartzite,	1,000
	Cambrian slates (Connecticut valley),	3,000
	Total Paleozoic,	15,800
PALEOZOIC?	Kearsarge andalusite group,	1,300
	Rockingham mica schist,	6,000
	Merrimack group,	4,300
	Ferruginous slates, with steatite (probably repetition of preceding),	
	Total Paleozoic?	11,600
EOZOIC.	Upper Huronian. Auriferous conglomerate,	50 to 300
	Upper Huronian. Lyman group,	2,330
	Upper Huronian. Lisbon group, containing steatite and serpentine,	3,539
	Upper Huronian. Swift Water series,	4,400
	Upper Huronian. Hornblende schist,	1,580
	Total Upper Huronian,	12,129
	Lower Huronian, porphyries of Massachusetts,	
	Labrador system,	
	Montalban. Franconia breccia,	
	Montalban. Fibrolite schists, with gigantic granite veins,	1,370
	Montalban. Ferruginous schists,	
	Montalban. Concord granite,	
	Montalban. Gneisses and feldspathic mica schists,	10,000
	Total Montalban,	11,370
	Laurentian. Lake Winnipiseogee gneiss,	18,600
	Laurentian. Bethlehem gneiss—fine-grained,	5,000
	Laurentian. Bethlehem gneiss—ordinary,	6,300
	Laurentian. Porphyritic gneiss,	5,000
	Total Laurentian,	34,900
	Total,	~~68:49~~ 8C.249

II. Eruptive Masses.

GRANITIC.	Conway granite,	FELDSPATHIC. Labradorite diorite,	AUGITIC. Diorite,
	Albany granite,	Porphyry,	Dolerite.
	Chocorua series,	Pequawket breccia,	
	Granite cutting Coös group,	Trachyte.	
	Granite not otherwise assigned,		
	Sienite of Mt. Gunstock, etc.,		
	Exeter sienite and diorite (Quincy),		

Eu & Pal

Hitchcock

C H Hitchcock