



E. N. Sharp
Apr 78

Amherst, Nova Scotia, 8th April, 1878.

Dr. J. W. Dawson

Principal &c. of McGill University
Montreal.

Sir,

Through the kindness of our mutual friend Albert J. Hill, Esq. C.E., who with myself is a resident of this place just now, I have had the great pleasure of a hurried perusal of the first part of the Supplement to the Second Edition of your "Acadian Geology". I have for years wished to meet you, especially when you were upon one of your "flying visits" to the Nova Scotia Coal-fields and others of your old scientific haunts, but have never yet had that pleasure. As Mr. Hill expressed a wish that I should write a half-column (newspaper) notice of the Supplement, and more especially as I am about to superintend extensive explorations for coal in the Cumberland field, I take the liberty of ~~you~~ writing you without a formal introduction.

And perhaps you will pardon me if, first of all, I say I am a graduate (M.A.) of the University of New Brunswick. I had nearly two years under the late Dr. Robt, one term under Prof. How at King's College, Windsor, and two years with Prof. L. W. Bailey. I had a taste for Natural Science when at college, and remained an extra year preparing for the India Civil Service. I took the highest honors in Natural
Science

Science, Mathematics &c., and obtained my M.A. degree on
the B.A. Examination. Owing to my father's illness and
death in 1863 I did not go to London for the I.C.S. examina-
tion. For the next four or five years I not only kept up my
Botany, Geology, Mineralogy &c., but as I had ample opportuni-
ty of rambling about fresh-made Railway Cuttings ~~on~~^{over}
the Intercolonial and other Acadian lines, I made also a
considerable addition to my knowledge of Natural Science and
N. History. From 1868 to 1871, though reading much, I was very
little in the field. I had at this time, however, frequent in-
terviews with Mr Matthew, and with him and others often
attended the Meetings of the Nat. History Society of St. John, N.B.
In 1871, I decided to give special attention to some coal
field in Nova Scotia, hoping in part to unite commercial
with scientific pursuits. The Cumberland field for various
reasons was chosen, and in 1872-3 I stocked The Spring Hill
Mining Company - which is now working so successfully - and
in 1873 also the Spring Hill & Parristown Coal & Railway Company.
You will find my name on the Geological plan or map in
several places in the Cumberland field, especially near Spring
Hill, and I am even more actively engaged than ever in the
commercial development of the district. ~~then~~

In 1871-2-3 I made a close examination of Spring Hill,
but for commercial reasons kept from the public much of the
information I had acquired, and more especially my own
deductions from the geological data I had accumulated.
Now, I have little to gain from withholding either the facts
or

or inferences respecting the Spring Hill district at least, and the other parts of the Cumberland-field with which I am best acquainted. Heretofore I have had too active a part to play commercially, to admit of my giving close attention to mere fossil-hunting or collecting specimens for a cabinet; but in future, having divested myself of much of the time-absorbing cares incident to launching new mining and Railway enterprises, I hope to prove more serviceable than I have been in the past to the advancement of Natural Science. If, then, amid your many cares, you will occasionally give ear to what I may be able to write you respecting this field, with now and then, as you may have opportunity, an exchange of sentiment on this or kindred subjects, I shall look forward to a new source of real enjoyment from which circumstances in the past seemed to preclude me.

I am reminded by what I have just been reading, that in 1876 I heard too late of your visit to Wentworth or Greenite - on the North Slope of the Cobequids, to seek you out during that trip. I was then at and near Piquash, making personal examination of the harbor there as to whether it is suitable or not for a Railway terminus and North Shore out-let for Cumberland coals, and also determining for myself the geological age or formation in that vicinity. I am again reminded (Sup. p. 93) of a trip I made last June to Mace's Bay, near Point Lepreaux in New Brunswick, and a somewhat hurried examination I made of the Anthracite region there. You will pardon me here if I say that for the past few years I

I almost invariably, on visiting a district new to me, refrain from reading a single word of anyone's writing upon it. I make the closest possible examination, taking ample notes, gathering specimens, and fossils (if possible) and when more at leisure, make careful research of all available Reports &c. by others, and minute examination of the specimens, fossils &c. On the evening of the 19th of June, in St. John, N.B., where I then resided, I had just nicely entered upon an examination of some beautiful Macco Bay fossils. On the morning of the 20th I wrote out part of a report, but that afternoon the Great St. John's Fire destroyed, fossils, unfinished report, and, worse than all, most of my most valuable Scientific Books, Geological Reports, Manuscript notes &c. &c. At the time, I had very grave doubts on two points respecting the anthracite of Macco Bay, namely: its economical value and the formation in which it is found. I may say briefly that I am still strongly adverse in opinion to those who maintain either its great value or its Devonian age. For the latter ^{view}, I believe, I had ample proof. The Devonian lies to the south of the outcrops which I examined, but I venture the opinion that it will at length be found that the Lepreau anthracite is not Devonian. The best (commercial) samples I saw were such as Dr. Harrington analyzed, and the trial shaft then open was less than 100 feet deep; it is to my mind, then, more highly possible — not probable — that it may prove valuable, than that its Devonian origin can be established.

I think I shall be able to send you interesting fossils and other specimens from Spring Hill and its vicinity: Besides plants
and

fishes - beautiful specimens of each - may be had a magnificent exhibit of White (Cockscomb) Pyrites found 150 feet (horizontally) from (i.e. below geologically) the lower west level of the East or Byers Slope.

I have made observations on the Spring Hill and adjacent portions of the Cumberland field which are at variance with many, most, or all the published or generally received notions respecting certain comparatively minor peculiarities especially. In the early part of 1873 I differed widely with Prof. Hind and others respecting the extension of the large Spring Hill seams; and later that year I made an extensive commercial venture based upon my own observations and opinion only, and in a few weeks I proved successfully that I was right, and, soon after, so accurately determined the "School House" Fault that comparatively little difficulty was subsequently experienced in tracing the seams beyond it. We have the funds provided now for a close examination of another part of the field, and as there are no commercial reasons for keeping private the result of these explorations, I shall be happy to communicate to you the results, if you wish them. The record of the Diamond Drill and other explorations made at Spring Hill in 1875 and 1876, have been given in detail to neither the representative of the Canada Geological Survey nor to the public. These, too, which are the most extensive and important
over

ever made, in an equal time, in the whole Cumberland field,
— I mean in a commercial or economic sense — may be
interesting to you, as, besides adding two or more large seams
to ^{our knowledge of} the group, a key is given to a hitherto unknown or
misunderstood portion of the field. We are preparing to
open, on a large scale, a fine seam of highly bituminous
coal about 6 or 7 miles from Spring Hill — a seam containing
some bands of rich cannel coal. Some 30 or 40 tons
only, from this seam, have yet been mined; but we have,
from about 20 of the first residents of Anberst, a
very highly eulogistic certificate as to its quality as a
house coal. This part of the field has not yet been connec-
ted with the Spring Hill District, but we shall spend much
time and money — if need be — during the incouring season
to determine the question of its identity.

But why weary you with details which can be ^{but} of much
less interest to you now than some of them might possibly
have proved to you while engaged in the preparation of
your Supplement, or than they may be rendered when more
real work upon the ground shall have been performed?
You will, I trust, pardon both the general infliction which
I fear this too long deliverance may prove to you, and
also what you may possibly regard as at least hyper-
critical or impertinent. I refer to that portion of the
Supplement which treats of the Origin of Coal. I read,
and three years ago, re-read Huxley's Essay on the Forma-
tion of Coal. Indeed, I may say I have read everything

I have found touching that question, and I must frankly confess I have as yet seen nothing ~~yet~~ exhaustively satisfactory on the subject. I cannot agree with Huxley; though, indeed, many layers may be enriched ^{by} but surely never slams formed ^{from} spores and spore-cases! While, however, I am thus told - fool-hardy, perhaps - in speaking of your Origin of Coal, and in alluding as I have done to the Devonian Anthracite of Point Lepreau, it affords me very great pleasure to find in so succinct a form for reference the many facts and observations contained in the Supplement, and I am sure it cannot fail to stimulate me in my researches in the future. I shall as early as practicable revisit some localities some of the peculiarities of which I flatter myself I know better than anyone else, and if you will be glad to have the fossil remains of and in erect trees from inland localities I shall think it but a pleasure to procure and send you them.

Permit me in conclusion to thank you for your Origin of the World, than which I have not read for years a more interesting work, - may I may even say a more satisfying discussion of a very noble theme. I procured it as soon as its appearance was announced, and having read it carefully I lent it to a friend whose opinion I have not yet received, though it is many months since he got it.

Yours

There is another Modern scientific work which I am extremely anxious to read. Three years ago I read a cleverly written review of the work, but I have never yet seen the volume, and I have forgotten the publishers of it. It is "The Moon", by Eickie and Lockyer, I think, though I am not quite sure. Why I am specially anxious to read the work, or at least the Introductory to it, is that the question of Expansion by Heat is — so said the reviewer — therein discussed by the light (of the moon, I was tempted to say) throws upon that question from a minute telescopic examination and indeed careful microscopic study ^{of photographs} of every visible portion of the surface of our satellite, and new and very learned deductions are drawn therein as to the effect of the general exceptions — instead of particular exceptions of water and some other substances — to the old law of the Expansion of bodies by Heat, as applicable to the Earth's crust and the dislocations of the same. Can you tell where I can get this work, and inform me whether a Second or Cheaper Edition than the first can be had, as, if my memory serve me, the Edition reviewed cost several pounds Stg.?

P.S. I have just been asked

to write a notice for one of the local papers here. I shall send you a copy of the paper. E.N.S.

Yours very Respectfully

E. N. Sharp