

St. Paul  
Dec 7<sup>th</sup> Park Avenue Hotel  
New York. Dec. 7. 1889

Dear Sir William.

I have many thanks  
to give for your kind note of Nov. 19.  
It should have been answered sooner but  
various matters have made me dilatory  
& I have not for a week been very well  
though now thank God I am better.  
I had my little volume "Relicification"  
printed in 1864 & then with my later work  
of 1880 your letter has enabled me to  
discuss the whole question of replacements  
at some length in my book which grows  
apace. I find the whole matter bears on  
an important & hitherto unperceived  
matter on some undecided questions in  
general lithology. but you will I trust  
see all in print before mid-summer.

I am much obliged for the little pamphlet  
which I have not yet had time to look at.  
Now as to your question about fossil re-  
mains in Dolomite. I have already con-  
sidered that subject in Geology of  
Canada 1863 & farther in my lately written  
chapter. Dolomite once formed is very  
insoluble in water carrying carbonic  
acid. The sol. of Carbonate of lime & Dol.  
omite therein by my experiments is about  
as 24:1. Hence Calcareous Shells. Corals  
etc. imbedded in dolomite, which  
is generally more or less porous, are readily  
removed by infiltrating waters, & thus  
cavities are left, as well seen in the Guelph  
Dolomite. These cavities in various cases  
are either empty or are filled by Calcite,  
by crystalline quartz, by Dolomite or  
by iron-oxides. In France is an example  
where the filling of the cavity is by



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peculiar iron ore. This is readily deposited from water and there noticed. fills many cavities in a non-fossiliferous dolomite in the Onondaga group in this State. just as does the molds of bivalves in France. Near Guelph, Ontario, and have long since described (1863) the molds in the pure dolomite left by the removal of mercurial joints are filled up of pure crystalline dolomite. The color being distinct from that of the paste. while the composition of the whole is like that of the non-fossiliferous beds adjoining, an almost theoretically pure dolomite. In fact, the beds with dolomitized fossils are the analogues of the completely deliquesced Antiquarian woods, which you know

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I think this explanation answers yr  
question. If not I shall be glad to hear from  
New.

The Amer Geol. Society meets here Dec  
26. I hope New to make my first pub-  
lic appearance for a year to read a pa-  
per on Meteorites about which I have  
something new to offer. We have also  
called a meeting of the Amer Com-  
mittee for the International Geol.  
Congress for the same time. Prof  
Hall will be with me in this hotel  
and I feel as if once more entering  
into scientific life.

Give my best regards to Lady Dawson  
my family & tell Dr. Hannington that  
the missing volumes of Silurian Form  
are found & will be sent on soon.

With best regards, dear Sir, William  
always faithfully  
Yrs  
J. Steyerhaug

Sir J. W. Dawson.