

Address
Dear Sir

Box 99
Garnett
Ohio

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~~City~~
Garnett Ohio

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Friend. J. W. Dawson

Having recd some very interesting circulars or pamphlets from thee and appreciating thy kindness, I wrote a synoptical sketch of some particulars respecting the drift; as the letter was rather voluminous it may not have reached its destination in the condition I had wished, and not yet having had any acknowledgement of its reception, I have been the more ready to fear it did not reach thee, as I was sure it; I did not know when or not - I am improving on good nature, but I have also said that I have in my possession information, that will when brought before the world, settle the American glacial question for ever. If thou hast not my letter I do not marvel at thy silence, as I know that Scien

entific men as frequently perplexed
and bored by enthusiasts with their
pet theories: now at last I admit
that - I am some what of an en-
thusiast - and that - I have a pet-
theory." I make this bold assertion, and
prove the truth of it - by evidence that
then and every unbiased man
must & shall admit viz that
the drift of the United States, usually
attributed as the result of glacial
action was not so produced: neither
is it a marine deposit - except a
small portion of ex York Canada &
all of New England - that the boulders
in the Wabash Valley and on all
the western country come from the Lau-
rentian ridge. That the Great Lakes
existed before the deposit of drift,
in the country around them - that
the mastodon lived upon the old soil
now underlying the drift - that
by the bursting of the barrier of a vast
inland sea swept out - a great part
of the St Lawrence channel
and, scattering some fresh water
shells with the marine. That said
"Inland Sea" was an expansion of
the Great Lakes & nearly 100 times
the size of Lake Superior, &c &c
Now it may seem a little dogmatic
and arrogant - in one of such
assertions as these. Wm. F. Fernald,

I will show them to be the backs or
I will acknowledge my error like
a man, the following is the
Southern boundary of it before meeting
colors sea of West water,
Commencing at the northern angle of
the Allegheny Co. it passes around
the north side of Chocoma Lake in the State of W. Va.
thence bears a little south through Erie
County Penna. through Crawford
Wayne & Butler Counties. thence turning
with almost an acute angle to the
west. it passes through Beaver Co.
approaching within three miles of the
Ohio, at the mouth of the Big Beaver
entering the State of Ohio 11 miles
south of the north line of Columbiana
Co. passing near the town of Canton
in Stark Co. entering Holmes Co.
near the north east corner & leaving
it near the south west, passing
through Knox & Coahuila Counties, and
crosses Licking, Fairfield, Pickaway,
Tazewell, Clinton, Warren & Butler
thence west bearing a little south
it passes through the States of Ind.
and Ill. crossing the Mississippi
at the "Grand Tower" & thence it is
continued westward by the York Co.
to the high grounds in the far west,
at Omaha this sea was 2000
feet deep. I ask no man to believe me
but I tell him come & see! never
tell to tell how the boundary of

sea was ruptured in several places
simultaneously by an earthquake
How the waters filled the Ohio & so
it above its high water mark, how
the lateral streams of that river
are lashed full of muddy water
which settles when the old soil
overwhelming its channels, & producing
an immense stratum of clay, &c. &c.
would take many pages, but I will
not encroach upon thy time any
more till I hear from thee.

I may add, that I have said nothing
that I can not prove, & if I had
to do so upon unseen circumstances
I will truly acknowledge the same,
I am writing my last account to
thee. I have been informed by friends
in the State of Iowa, of the
discovery of the bones of a fish, which
he was digging his well; he has pre-
served them for me, and I await
their arrival with great deal
of interest. The drift covers
the entire State of Iowa except
that well that rises 1400 feet above
Lake Erie, and that drift varies
from 10 to 45 & 50 feet in depth
My Grand I close this account
hoping I hear from thee before long
Respect Isaac Newton Veal

FACTS IN GEOLOGY.

THIRD ARTICLE.

I deem it unnecessary to furnish any more direct evidence of the lacustric character of the drift in the great lake basins before referred to,—and will in the present article give some collateral evidence in the nature of geological phenomena, that must always remain enigmatical until they are explained by the accumulated waters of an immense inland sea.

I ask the reader now, to imagine a vast body of water one hundred times the size of Lake Superior, whose level stands twelve hundred feet above the ocean, and confined by rocky barriers, bolted together by chains of granite and sandstone. Imagine this sea to be subjected for ages to storms and tempests, to the vicissitudes of seasons similar to those we now experience. Behold the storm-driven iceberg, rearing its massive form into the air, and rocking to and fro in obedience to the impulse brought to bear upon it. Behold the numerous islands clothed in cypress and cedar forests, the waves continually dashing upon their pebbly shores. Behold upon its southern shore huge granite blocks, that have been borne from the Laurentian Ridge; and if you can raise your imagination to this, you have a fair idea of this great Mediterranean sea, just as it existed, according to the records of geology, more than ten thousand years ago; and yet quite recent in its operations as compared with other geological phenomena. The manner in which this period of time is ascertained will be noticed in its proper place, in a future article.

But we have the sea before us in all its majesty. The Missouri river and other streams are pouring into it from the west, bringing down their load of mud, sand, drift wood, etc., and spreading over its bottom. The extensive drift in Iowa is the immediate deposit from these rivers flowing from the base of the Rocky Mountains; being nearer the mouths of these streams, the drift of that State is deeper, and in many respects dissimilar to the more eastern. I have before me a specimen of fossil wood, found forty feet below the surface of the ground, imbedded in other drift.—Limbs, logs, stumps, and even large trees may be found in abundance, many feet below the surface; and when we behold the deep worn channels that the Missouri and its tributaries have made by the wear of ages, in the solid rock, we will not wonder at the extensive drift deposits. These rivers in many places have worn a channel hundreds of miles in length, and from five hundred to fourteen hundred feet deep.

But let me pause here and ask: why yonder hill is not covered by the drift the same as that which covers its side and base? and why is this hill, which is only twenty feet lower in elevation, entirely covered? It is simply because the former arose above the water and the latter was covered with it, and when hundreds of these may be pointed out, what more evidence do we need of the existence of the sea?

But I have scarcely yet made a beginning; and when I try to grasp the subject in its grandeur and magnitude, from the time that this body of water began to accumulate until this great basin was full, and its barriers were shattered by an earthquake, I regret to say I am unable for the task; but as we are now just entering the most interesting features respecting its progressive drainage, I must lead the reader along this southern boundary, or ancient shore, where its water-worn pebbles mark the exact level of the ancient sea. We will find that it has been ruptured in several places, at the same time, and mighty sweeping floods have burst through the rent, and torn the rocks from their foundations, as a mill-

dam would burst through and destroy its embankments.

Let the reader stand in the gap of the Big Beaver where it flows through this barrier; or in the Miami, a few miles above Cincinnati; or at the Mississippi, where it rushes through the eastern spurs of the Ozark Mountains, and he will see in each gap the same general features. He will see at the Grand Tower, on the latter stream, where it pours through the gorge, that the rocks high above his head are escarped by the action of water, and worn into all manner of fantastic curves. There is a rocky parapet hundreds of feet above the surface of the stream, which bears every evidence of having been subjected for ages to the action of a sweeping flood. What! has the Mississippi ever flowed at that height? Yes, it has.— Here was the grand break in the ancient barrier. There is the breastwork over which the majestic torrent leapt into the abyss below. Here was a mighty cataract that wore away the rocks and cut for itself a deep channel for eighteen miles backward as the waters receded. At Cape Tourmanti was a break and a cataract of equal, if not greater, magnitude and grandeur, and far out on the confines of the Atlantic are the "Grand Banks" of deposit, washed from the valley of the St. Lawrence.

But we will return, and trace these grand operations near home. And in my next article I will invite my readers to take a stroll, as I often have done, along the pebbly banks of the Ohio, which at one time was the only great river in the Mississippi Valley; for then the Mississippi River was not.