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THE OTTAWA NATURALIST.

Published by the Ottawa Field-Naturalists' Club.

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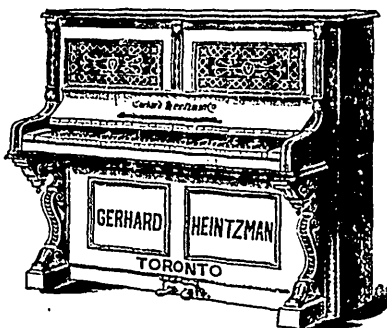
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THE OTTAWA NATURALIST.

VOL. X.

OTTAWA, SEPTEMBER, 1896.

No. 6.

AN OTTAWA NATURALIST'S JOURNEY WEST- WARD.

By ANDREW HALKETT, Esq.

Having recently taken a journey across the great plains of the far west and through the Rocky Mountains, it has occurred to me that a short account of certain animals and plants which were observed along the line from the car windows or at the railway stations would be of interest to the readers of the OTTAWA NATURALIST. The journey was rendered the more pleasant by the presence on the train of Prof. D. Thompson, of Dundee, Scotland, Mr. James Macoun and Mr. McEvoy, of the Geological Survey, Ottawa. Mr. McEvoy got off at Kamloops, leaving Prof. Thompson, Mr. Macoun and myself to continue the journey by rail to New Westminster, and thence by boat to Victoria.

To the student of nature a journey by rail across the prairie is full of interest. Such, it is true, does not afford an opportunity for close observation of the numerous faunal and floral forms existent on every hand, but as the train moves on there is much to attract the attention from the car windows and at the stopping places along the line.

Before reaching the great plains there are districts where the train pursues its way for long distances without stopping, the country being almost entirely unsettled. There are conifers, but otherwise the vegetation is low and scrubby. At Otter, specimens of the Yellow Swallow Butterfly (*Papilio turnus*) were seen. At White River, a small frog, presumably *Rana halecena*, was found. At Cache Lake, we saw an encampment of Indians—men, women, and children—with wigwams and birch-bark canoes. At Jack Fish Bay, where the train makes a tremendous sweep in shape like the letter U, I observed some Herring Gulls

(*Larus argentatus*, Brunnich) swimming on the water and flying about. Farther on, at Vermilion Bay, were two bears (*Ursus Americanus*, Pallas) chained near the railway station, a medium sized one and a very small one, the latter about the size of a Newfoundland dog pup; these occasioned much amusement, especially among the colonist passengers. On the prairies some of the barns are rudely thatched, and, as the cattle often stand out of doors, smudges are built for them. Regarding mosquitoes, judging from size and colour, it would seem there are several species, and one has only to step off the train to pluck a few flowers-or look for insects, when he will soon have multitudes of those unbidden dipterous on his back and sleeves. One morning early I looked out of the pullman window and saw a Cow-bird (*Molothrus ater*, Boddaert) alight on a horse's back, and the horse was quite willing to allow it, for doubtless the bird is a great boon to horses and cattle in devouring the insects which torment them. At Moose Jaw the train stopped for some time. Here I caught a specimen of one of the Garter Snakes, probably the variety known as the Riband Snake (*Eutainia saurita*, L.) Not having access to boxes at the time I managed to get him into my razor case, awaiting an opportunity of attending to his interests as a Natural History specimen, and am happy to say every thing possible has since been done for him, and he is now in excellent spirits. When caught he was minus the tip of the tail. Here also we saw a Kill-deer Plover (*Ægialitis vocifera*, L.), and two Marsh Harriers (*Circus hudsonicus*, L.) The kill-deer acted as if it designed to draw us away from its nest; and the female hawk floated about like a boy's kite just over our heads, and did not appear inclined to get out of the way. After leaving Boharm, those interesting little Rodents, the Gophers (*Spermophilus* sp.), were to be seen sitting up straight or jumping about. At different places heaps of Buffalo (*Bison bison*, L.) bones are exposed to view. I collected

a few teeth, a vertebra, and a rib, noting the localities with the intention of getting more on my return. After leaving Swift Current I saw a Hare, which may have been the Jack-rabbit or Prairie Hare (*Lepus campestris*, Bachman), also beautiful ducks on the water, and heard the croaking of frogs. Farther on I had the good fortune to observe, but just for an instant, a Coyote (*Canis latrans*, Say) running over the prairie, and at the Medicine Hat Station another Coyote was seen in a cage with a bear (*Ursus americanus*, Pallas), also a fine White Pelican (*Pelecanus erythrorhynchos*, Gmelin).

The foregoing is a meagre account of some of the forms of animal life to be seen on the prairie. The plains have nothing wherewith to hide them, therefore they are fully exposed to view, but—as we approach the mountains with their summits covered with snow, whilst beneath them flow rivers beautifully clear - the scene is all changed. Whatever may be there of animated nature is mostly hidden, and the mind becomes, in a direct way, attracted to the scenery. However, right beside the terrible gorge of a canyon, where the mountain towers high overhead, and the river flows far beneath, there was seen a specimen of "the Ouzel or Dipper (*Cinclus mexicanus*, Swainson), an aquatic thrush which swims (or rather flies) freely *under* water, although not web-footed. It is a fine singer, living about mountain torrents in the Rocky Mountain regions." Jordan.

At New Westminster we left the Canadian Pacific Railway and got on board the steamer for Victoria. Whilst we are passing down the Fraser River, an opportunity was afforded of seeing the Salmon Canneries, and it was very interesting to observe the Chinamen making the tin cans. As each had his especial work assigned him, it was like the ten men to make a pin story over again. As the steamer stopped at Mayne Island, Plumper's Pass, I got off at the wharf for a little while to look around. Here I saw a lot of fresh halibut and cod-fish ready

for the market, but what really attracted my attention most was the innumerable crabs under stones, sea-weed, etc. I forthwith transported eight or nine of them to my pocket, but they kept running over my arms and jacket so persistently that by the time I reached Victoria they had all managed to escape save one. I may here say that one thing very characteristic of the British Columbia fauna is the omnipresent crab.

At Victoria I took a walk along the sea shore and was charmed by the varied living creatures in the pools at low tide. Besides crabs I noticed a species of *Cottus*, Limpets (*Acmæa*), and lovely Anemones (*Actinia*). The first mentioned were very active and persistently endeavoured to catch crustaceans; the limpets held on tenaciously to the rocks so that it was difficult to remove them without breaking the edge of the shell, whilst, in the language of M. Louis Figuier the anemones expanded "their tentacles as the daisy displays its florets."

While in the vicinity of Victoria, my attention was drawn to the marked difference in the colour of the tent caterpillar, *Clisiocampa californica*, from that of our eastern form. It is decidedly of a red colour, and was found feeding near its tent on an oak and wild rose, or crawling along the fences. I collected a few and have now the cocoons with the pupæ in a box in my cabin.

A model of its kind is the provincial Museum at Victoria. It would be out of the question to try to describe the numerous mammals, birds, crustaceans, insects, etc., in this institution, but I must call attention to three specimens of the land-crab (*Birgus latro*) of Columbus Island.* These very large crustaceans are said to be entirely terrestrial, living principally on a small species of cocoa-nut, to obtain which they climb trees. If such be the case, it necessarily follows that there must be some very marked modification of the respiratory organs.

*A tropical island.

I append a short account of some of the plants observed between Ottawa and Victoria. The names of these and indeed any information about them have been furnished me by Mr. James Macoun; and have to add that they are simply some of the more common kinds which were readily seen during the journey.

The showy Philadelphia lily *Lilium philadelphicum*, was the first flower to attract my attention. It, with *Cypripedium spectabile*, was very abundant between Bell's Corners and Stittsville within the fences that bound the railway track. Between Dog Lake, which was crossed at Missinabic station, and Winnipeg the plants observed were mostly those peculiar to swamps and boggy woods—the most conspicuous being *Ledum latifolium*, Ait., and *Kalmia glauca*, Ait. *Caltha palustris*, L., was common in ditches; and near Port Arthur the beautiful large white-flowered *Rubus nutkanus*, Moc., was first seen, but was most abundant in thickets along the railway embankment in the interior of British Columbia. Upon entering the prairie, a marked change was observable in the floral species. Two species of *Astragalus* are very common—*A. hypoglottis*, L., and *A. pectinatus*, Dough. The predominating colour among the flowers of the prairie is yellow. This, however, is owing to the conspicuous character of that colour, and not indicative of the species of plants, as was evident whenever there was an opportunity to step off the cars and look about. One such conspicuous flower is *Thermopsis rhombifolia*, whilst the genera *Arnica*, *Senecio*, and *Potentilla* are well represented. Some of the most beautiful of the flowers plucked on the prairie were *Linum perenne*, L.; *Oxytropis Lamberti*, Pursh; *Castilleja miniata*, Dougl.; *Malvastrum coccineum*, Gray; and *Companula rotundifolia*, L.

“At the Glacier hotel a large bunch of *Erythronium grandiflorum* graced the centre of each table. This species is very

much more beautiful than the common Adder's tongue of the east—the flowers being larger and brighter and as many as seven are sometimes found on one stem. As the coast was approached the western flowering dogwood (*Cornus Nuttallii* Aud.), still in bloom, was seen here and there through the woods”

During my few days' stay in Victoria I was pleased to see the Whin (*Ulex europæus*, L.) of my native country, Scotland, growing in great abundance. It with the Broom (*Sarothamnus scoparius*, Koch) displayed their gay yellow all around the suburbs of the city.

Unalaska, 21st July, 1896.

OBITUARY.

SIR JOSEPH PRESTWICH—Foremost in the rank of geological science in England for the past fifty years Joseph Prestwich has stood. He was born at Pensbury, Clapham, near London, in 1812; was educated both on the Continent and at University College. His writings are very numerous but his crowning work will ever be the princely “Manual of Geology” which he was fortunate enough to see finished. In 1874 Prestwich succeeded Prof. John Phillips in the chair of Geology at Oxford. This position he held until 1888. On the first of January, 1896 he was knighted by H. M. the Queen. He died at his charming home at Shoreham, Kent, on the 23rd day of June, 1896.

G. A. DAUBRÉE—It is not long since geology had to mourn the loss of James D. Dana and now France has lost one of its most eminent scientists in the person of Gabriel Auguste Daubrée the great physicist and experimental geologist. He was born at Metz in June, 1834, educated in Paris and was successively Mining Engineer and professor of geology in Strasbourg. In 1861 he obtained the chair of geology at the Muséum d'histoire naturelle in Paris. Among his chiefest works we note, "Eaux Souterraines" and "Etudes Synthétiques de géologie expérimentale" which will more than keep his memory green in the minds of fellow-workers in the realm of Geological Science.

THE CHEMICAL LABORATORIES AT THE CENTRAL EXPERIMENTAL FARM.

On the 6th of July last fire made sad havoc with the comparatively new and finely equipped laboratories of the chemical branch at the Central Experimental Farm, Ottawa.

Shortly after 6 p.m., when nearly all the staff were out, an explosion took place, due to the bursting of a flask containing boiling sulphuric acid and used in a method of nitrogen determination. The fire spread rapidly but with a great deal of labour and toil the flames were confined to the eastern end of the building, otherwise the museum and all the invaluable collections of the Botanist, of the Entomologist, the Horticulturist as well as of the Director would have been destroyed.

We have no doubt that the Government will restore the Chemical Laboratory at the Farm to the degree of usefulness

and efficiency to which it had reached in the hands of our friend Mr. F. T. Shutt, the able chemist and we venture to hope that on the grounds of efficiency, economy and safety the new laboratories will occupy a distinct and separate building.

The large amount of useful work that has already been done in the laboratories of the Central Experimental Farm more than justifies the Government spending a liberal amount upon their restoration. It would be a serious loss if the important researches made in the growing interests of our agricultural community were allowed for a length of time to be discontinued.

In order to succeed agriculture must be carried on under proper scientific and approved methods and these methods can only be the outcome of scientific experiments in the domain of agricultural chemistry.

H. M. A.

NOTES, REVIEWS AND COMMENTS.

GEOLOGY.—ADAMS, FRANK D., and HARRINGTON, B. J. —“On a new Alkali hornblende and a Titaniferous Andradite from the Nepheline-syenite of Dungannon, Hastings Co., Ontario.” *Amer. Jour. Science*, Vol. 1, pp. 209-218, March, 1896.

AMI, H. M.,—“Preliminary lists of the organic remains occurring in the various geological formations comprised in the south-west quarter sheet map of the Eastern Townships of the Province of Quebec.” *Geological Survey of Canada, Annual Report, Vol. VII, New Series, Report J., pp. 113-157, Ottawa, 1896*; being Appendix A to Dr. Ellis's Report J of same volume. Reprint pp. 1-54, Ottawa, June, 1896.

SARDESON, F. W.—“The Saint Peter Sandstone,” *Bulletin of the Minnesota Academy of Natural Sciences, Vol. IV, No. 1, Minneapolis, Minn., Feb. 28th, 1896*. This is certainly the clearest description and exposition of this important formation that we know.

SARDESON, F. W.—“*The fauna of the Magnesian series. Description of fossils.*” Bulletin of the Minnesota Academy of Sciences. Paper F., Vol. IV., No. 1, pp. 92-105, Pl. V and VI, Feb. 28, 1896. In this paper Prof. Sardeson has done much to clear the veil of obscurity which lay over the palæontological characters of the “Lower Magnesian” and “Potsdam” formations. The former is treated of in this important paper.

CHALMERS, R.—“*Pleistocene marine shore-lines on the south side of the St. Lawrence Valley.*” Amer. Jour. Sc. Vol. 1, pp. 302-308, New Haven, 1896. In this paper Mr. Chalmers brings together a number of observations which seem to correlate and possibly identify the St. Lawrence Valley beach, which is certainly marine, with the Iroquois beach of other authors, and thus reaches the same conclusion arrived at by Taylor, that the marine terraces of the Lake Champlain district coincide with Iroquois, Chippewa and Huron beaches.

WESTON, T. C.—“*Notes on the Geology of Newfoundland.*” Trans., Nova Scotia Institute of Science, Vol. IX, pp. 150-257, Halifax, 1896. This paper contains notes of observations made by Mr. Weston in that island during the summer of 1874. A clear statement of the author's non-belief in the organic origin of “*Eozoon Canadense*” accompanies his notes on the Laurentian System. With reference to the Huronian, the Cambrian and Quebec group of the island, Mr. Weston gives numerous lists of the organic remains comprising species described by the late E. Billings.

Notes on the Devonian, Carboniferous follow the above and thus bring a number of interesting facts together.

JAMES, JOSEPH F.—“*The first fauna of the earth.*” The American Naturalist, Vol. XXIX, No. 346, pp 879-887 and pp. 979-985, October, 1895

This paper comprises notes on fossil organic remains from New Brunswick, Newfoundland, Quebec and other portions of British North America. It is copiously and fairly-well illustrated, thus affording a graphic representation of some of the earliest types known up to the present time.

WINCHELL, N. H.—“*The Black River limestone at Lake Nipissing.*”—Amer. Geologist, Vol. XXIII, No. 3. pp. 178-179, Sept., 1896. In this paper Prof. Winchell records Prof. E. O. Ulrich's determinations of 12 species of fossils from the Islands of Lake Nipissing. The collection was made by T. D. Ledyard, Esq., of Toronto and are as follows :

Esharopora subrecta, Ulrich ; *Helopora mucronata*, Ulr ; *Esharopora (?) limitaris*, Ulr ; *Rhinidictya nutabilis*, var. *major* Ulr ; *Phyllodictya varia*, Ulr ; *Batostoma Winchelli*, Ulr ; *Callopora multitabulata*, Ulr ; *Columns of an undetermined Glyptocrinus*. *Rhynchotrema inaequivalvis*, Castlenau, *Leperditia fabulites*, Con. ? *Aparchites neglectus*, Ulrich.

Prof. Winchell adds that the above species “show the probable former prevalence of the Trenton Ocean far to the north and taken in connection with the small known area of the Trenton in Northern Michigan, near the base of Keweenaw Point, indicate that in the Trenton age a continuous sea occupied the area from Lake Nipissing to Lake Winnipeg.

BEECHER, CHAS. E.—“*On the validity of the family Bohemillidae Barrande.*” Amer. Geol. Vol. XVII, No. 6, pp. 360-362, June, 1896.

Dr. Beecher has cleared the mist away from the trilobites of this family and recognises *Bohemilla* as a synonym of *Aeglina*

"unless," he says, "the location of the glabella and axes should be considered as of generic importance," a feature which is or is not present in so many forms from rocks in the Girvan succession. *Æglina* occurs in Ordovician strata of Quebec group age in Canada.

TRAQUAIR, R. H.—"*Fossil fishes of the Moray birth area*" being a reprint from the "Vertebrata of the Moray basin" by Messrs. Hardie, Brown and Buckley. As Prof. Claypole remarks (Amer. Geol. July 1896, p. 31): "Prof. Traquair has here summed up to date our knowledge of the fossil fishes, chiefly Devonian, of Scotland, etc."

The oldest fish remains were found in the Orcadian lower old Red beds of Cromarty and occur in limestone nodules. A note goes on to say that this Orcadian series was deposited "in a large lake of Lower Devonian age." The Baie des Chaleurs basin in Eastern Canada is probably similar in origin to this.

HINDE, G. J.—*Descriptions of new fossils from the Carb. limestone.* Q. J. G. S. London, Vol. LII, pp. 438 to 450 and plates XXII and XXIII, August, 1896.

Contains interesting descriptions and notes on the structure, affinities and geological relations of (I) *Pemmatites constipatus*, N. sp.; (II) *Paleacis humilis*, N. sp.; (III) *Eunicites Reidiae*, N. sp., a lithistid sponge, a perforate coral and the jaw apparatus of an annelid.

MATTHEW, G. F.—*Notes on Cambrian Faunas—the Genus Microdiscus.* Amer. Geol., Vol. XVIII, No. 1, pp. 29-31, July, Minneapolis, 1896.

SELWYN, A. R. C. (Dr.)—C.M.G., F.R.S.—"*On the origin and evolution of Archaean Rocks with remarks and opinions on*

other geological subjects ; being the result of personal work in both hemispheres from 1845 to 1895.

Trans. Roy. Soc. Can. (Presidential address.) Extract from Volume II second series, 1896-97. Ottawa, 1896.

MILLER, W. G. and BROCK, R. W.—“*Some dykes cutting the Laurentian series in the counties of Frontenac, Leeds and Lunenburg, Ont.*” Can. Rec. Sc., 8 pp., 3 plate, October, Montreal, 1895.

MILLER, W. G.—“*Minerals and the Roentgen Rays.*” Amer. Geol. Vol XVII, No. 5, pp. 324-325, Minneapolis, May, 1896.

Thin sections of granite, hornblende gabbro, quartz, beryl, garnet corundum and diamond, together with a small grain of glass were subjected to the X rays and it was found that carbon and its compound are “more transparent than inorganic substances” Crystals of hydrated compounds appear to be generally less opaque than those of the corresponding anhydrous materials. Experiments on relative transparency of a number of liquids were also made and these prove very great. H₂ SO₄ was found to be the most opaque of any examined by Dr. Miller. An excellent figure accompanies the paper.

WIMAN, CARL—“*Ueber die Graptoliten.*” Bull. Geol. Inst. Upsala No. 4., Vol. II, Pt. 2, 74 pp. plates 9-15, 1895.

CLAYPOLE, E. W.—“*The ancestry of the Upper Devonian, Placoderms of Ohio.*” Amer. Geol. XVII, No. 6 pp. 349-360, Minneapolis, June, 1896.

SAPPER, CARLOS D.—“*Sobre la geografia Fisica y la geologia de la Peninsula de Yucatan.*” Instituto Geol. Mexico, 1896.

This treatise deals with the geology orography and hydrography of the peninsula of Yucatan to which is appended

a long list of altitudes in metres and a series of five geological maps prepared under the direction of the late Antonio del Castillo. (Government Report).

TODD, J. E.—“*Log-like Concretions and fossil shores.*” Amer. Geol., Vol. XVII. No. 6. Pl. XII, p. 347-349, June, 1896.

The concretions in question belong to the Laramie formation of Western Dakota. They are log-like in shape, composed of fine sand cemented together with calcareous matter and showing wavy lamination or ripple marks. One block was about twelve feet in length and two feet in diameter. No fossils were found in them. The hypothesis is that such concretions mark ancient beaches.

This interesting paper calls to mind certain log-like concretions collected by Mr. N. J. Giroux in the Trenton (*Ordovician*) of Eastern Ontario last summer and communicated to the Director of the Geological Survey of Canada and to ourselves.

DODGE, R. E.—“*Geography from Nature.*” Bull. Am. Geog. Society, XXVIII. eleven pages.

An interesting appeal for the study of Geography in the field, on excursions, where the various forces of Nature that are at work can be readily observed in their great form-producing processes. We recommend this paper to all teachers and students of geography.

TAYLOR F. B.—“*Notes on the Quaternary geology of the Mattawa and Ottawa Valleys.*” Amer. Geol. Vol. XVII, No. 2, pp. 109-120, August, 1896.

This paper is of special interest to all students of Pleistocene geology in North America and describes numerous points observed by Mr. Taylor during his visit and study of the region

in question. We look forward with interest to Mr. Taylor's paper which is to follow this one in which an account of the submergence phenomena at lower levels in the Mattawa and Ottawa River Valleys will be given.

UPHAM, WARREN, "*Origin and Age of the Laurentian Lakes.*"
Amer. Geol., Vol, XVIII, No. 3, pp. 169-177, Sept., 1896.

In this paper the author discusses the pre-glacial condition of the St. Lawrence basin, the changes which brought in the ice age and the subsequent recession of the ice-sheet. The glacial lakes in the St. Lawrence basin are then described: Lakes Warren, Algonquin and Iroquois. Niagara River and its history, as well as that of the gorge below the falls, are given, whilst the hypothesis of the Nipissing and Mattawa outlets from Lakes Huron, Michigan and Superior is followed by a computation of the probable duration of Niagara Falls and the past glacial period.

THE ALGONQUIN AND NIPISSING BEACHES.

Students of pleistocene geology will do well to read the correspondence by Messrs. F. B. Taylor and Warren Upham on the above subject in the June number of the *American Geologist*. In a terse and taking manner the two writers present the evidence on which they pin their faith. Until the topography of the higher abandoned strands of the modern great lakes is better known and the relative heights of the various orographic features adjacent are ascertained it seems premature to dogmatise. It seems to us that the natural and commendable method of reaching more satisfactory and definite conclusion would be to begin with the present level of the lakes and proceed in delineating all the abandoned shore lines now visible all around these lakes, map them out; then, begin to draw inferences.

OTTAWA E. D. AGRICULTURAL SOCIETY.

This Society has been doing a great deal of good work in our midst towards stimulating Horticulture in the highest sense of the term. The success which has attended its efforts have been marked and the results already obtained more than warrant the expenditure. \$450.00 in prizes are offered for competition to growers in the Ottawa District,

The following are the officers of the society :— President, John Craig, Esq., Dominion Horticulturist, Central Experimental Farm ; 1st Vice-President, R. B. Whyte, Esq., leader in Botany, O. F. N. C.; 2nd Vice-President, Alex. Stewart, Esq.; Secretary-Treasurer, P. G. Keyes, Esq.

FACTS ABOUT THE GREAT LAKES.

Mr. P. Nedel has tabulated the physical features of the Great Lakes in a late number of the Journal of the Western Society of Engineers as shown below.—Ex. *Amer. Geol.*

	Length, miles.	Average width, miles.	Maximum width, miles	Short line, miles.	Water area, (including islands) square miles.	Average depth, feet.	Maximum depth, sounded, feet.	Surface above tide-water, feet.	Deepest point, above tide-water, feet.	Water volume, cubic miles.	Land area of water-shed, square miles.	Aggregate water and land area of water-shed, square miles.
Lake Superior.....	390	70	100	1300	31200	475	1008	602	-406	2800	51600	82500
St. Mary's river.....	53 40	2 1/2 1 1/2	5 4	100	200	53					800	1000
Lake Michigan.....	335	58	85	875	20200	335	870	581	-289	1290		
Green Bay.....	115	15	21	260	1700	95	144	581	+437	30		
Mackinac straits.....	30	16	23	60	500	75	234	581	+347	7		
North channel.....	110	12	18	220	1400	70	240	581	+311	20		
Lake Huron.....	250	54	100	725	17400	210	702	581	-121	650		
Georgian Bay.....	120	40	58	390	5200	170	462	581	+119	170		
St. Clair river.....	35	1		70	30						3500	383
Lake St. Clair.....	19	25	29	90	410		21	575	+554	1	3400	3510
Detroit River.....	27	2	3 1/2	54	60						1200	126
Lake Erie.....	250	40	58	590	10000	70	204	578	+369	130	22760	32700
Niagara river.....	34	1		70	60						300	360
Lake Ontario.....	180	40	58	600	7300	300	738	247	-491	410	21600	2890
St. Lawrence river.....	760	20	95									
Totals.....				5404	95600					6508	174800	270460

INTERNATIONAL GEOLOGICAL CONGRESS.—1897.

We have just received the propectus for the Seventh Session of the *International Geological Congress* to be held in St. Petersburg during the summer of 1897. His Imperial Highness, Mgr. the Grand Duke Constantin Constantinovitch, President of the Imperial Academy of Sciences, has accepted the position of Hon. chairman of the reception committee and Mons. A. Karpinsky, Director of the Geological Survey, that of President. Amongst other well-known celebrities are:—MM. N. Audrousow, V. Moeller, Nikitin, Romanovsky, Fr. Schmidt, Baron E. Toll, Th. Tschernyschew and Von. C. Vogt of St. Petersburg, V. Amalitsky of Varosvia, D. Anoutschin, E. Fédorow, A. P. Pavlow, and V. Sokolow in Moscow, besides J. Sederholm and A. Tigerstedt of Helsinfors.

SUPPOSED PRE-CAMBRIAN ORGANISMS.—In a very brief editorial comment,* quite a number of so-called species of organic remains from rocks of “pre-Taconic” or pre-Cambrian age have been wiped off the palæontological slate as if with a sponge. We prefer to await the result of more extended researches, more careful and more critical study in the field and in microscopy, biological and petrographical, before making such a clean sweep. Certain it is that there must be somewhere in some rock formation of the globe, some organisms older than what are to-day the oldest known Cambrian fossils, all of which will serve to throw light on what are now doubtful forms.

*Am. Geol. Vol. XVIII, No. 3, September, 1896.

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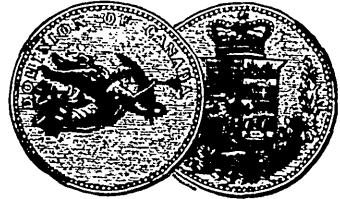


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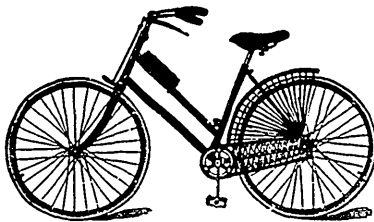
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