	Leg. Grant.	Local contributions	Excess.
Dissent'ent schools....	28 5 7	83 2 6	54 16 11
St. Casimir.....	96 6 5	210 7 4½	113 17 0½
Grondines.....	51 1 3	145 13 7	94 12 4
Deschambault	98 6 5	210 7 4½	112 0 11½
Ecureuils	19 17 0	43 6 7	24 9 7
Pointe-aux-Trembles..	72 4 5½	89 19 5½	17 15 0
St. Augustin.....	56 8 4	145 0 0	98 11 8
Cap-Rouge.....	16 3 2	57 15 6	41 12 4
Ancienne-Lorette.....	93 4 0	175 0 0	81 16 0
Ste Foye.....	25 5 8	86 15 11	61 10 3
St. Ambroise	89 10 0	169 15 7½	80 4 5½
Charlesbourg	71 14 7	154 14 10	82 0 3½
Beauport	82 12 6	245 0 0	162 7 6
St. Dunstan	13 13 0	24 10 0	10 17 0
Stoneham	16 15 10	171 9 10	36 8 0
St. Colomb	137 9 8	240 0 0	102 10 4
St. Roch.....	135 1 10	171 9 0	36 8 0
Valcartier	42 12 0	.....	.....

Notices of Books and Publications.

THE CANADIAN NATURALIST AND GEOLOGIST. April, 1863. No. 2, Vol. VIII.—Dawson Brothers, Montreal.

The present number of this ably conducted magazine contains much valuable information. The contents are as follows:—"The Air-Breathers of the Coal Period in Nova Scotia; by J. W. Dawson, LL. D., F. R. S., &c. (*Continued.*) Notes on Diatomaceæ from the St. John River; by Prof. L. W. Bailey, of the University of New Brunswick. Description of new Trilobite from the Quebec group; by T. Devine, F. R. G. S., C. L. Dept. Quebec. On the Land and Fresh-water Mollusca of Lower Canada; by J. F Whiteaves, F. G. S., &c. On the Antiquity of Man; a Review of 'Lyell' and 'Wilson.' On the remains of the Fossil Elephant found in Canada; by E. Billings, F. G. S. Remarks on the Genus *Lutra*, and on the Species inhabiting North America; by George Barnston, Esq. Addenda to Dr. Dawson's article above mentioned.

The reviewer of Prof. Wilson's *Pre-historic Man* and Lyell's work on the antiquity of the species discants with much ability and learning on a theme advanced to a most prominent place in the eyes of the scientific world by the advent of the *Origin of Species*. We cannot republish this article at length but give the following extract:

"The great question to be noticed in this review is that of the connection of human with geological history. How far back in that almost boundless antiquity disclosed by the geologist has man extended? At what precise point of the geological scale was he introduced on the mundane stage, and what his surroundings and condition in his earlier stages? In answer to these questions, negative geological evidence, and some positive considerations testify, without a dissenting voice, that man is very modern. All the evidences of his existence have until the last few years belonged exclusively to the Recent or latest period of the geological chronology. Certain late observations would, however, indicate that man may have existed in the latter part of the Post-pliocene period, and may have been contemporary with some animals now extinct. Still the evidences of this, as well as its true significance, are involved in much doubt; partly because many of the facts relied on are open to objection, partly because of the constant accession of new items of information, and partly because the age of the animals, whose remains are found with those of man, and the time required by the physical changes involved, are not certain.

"To these questions Sir Charles addresses himself, with all his vast knowledge of facts relating to tertiary geology, and his great power of generalisation; and he has, for the first time, enabled those not in the centre of the discussions which have for a few years been carried on upon this subject, to form a definite judgment on the geological evidence of the antiquity of our species.

"As a necessary preliminary, Sir Charles inquires as to the *recent* remains of man, including those which are pre-historic in the sense of antedating secular history, but which do not go back to the period of the extinct mammalia. He refers in the first place to the detailed researches of the Danish antiquaries, respecting certain remains in heaps of oyster-shells, found on the Danish coast, (which appear to be precisely similar to those heaps accumulated by the American Indians on our coasts from Prince-Edward Island to Georgia); and respecting similar remains found in peat bogs in that country. These remains show three distinct stages of unrecorded human history in Denmark:—1st. A *stone period*, when the inhabitants were small sized men, brachykephalous or short headed men, like the modern Lapps, using stone implements, and subsisting by hunting. Then the country, or a considerable part of it was covered by forests of Scotch fir (*Pinus Sylvestris*) 2nd. A *bronze period*, in which implements of bronze as well as of stone were used, and the skulls of the people were larger and longer than in the previous period; while the country seems to have been covered with forests of oak (*Quercus robur*). 3rd. An *iron period*, which lasted to the historic times, and in which beech forests replaced those of oak. All of these remains are geologically recent; and except the changes in the forests, and of some indigenous animals in consequence, and probably a slight elevation of some parts of Denmark, no material changes in organic or inorganic nature have occurred

"The Danish antiquaries have attempted to calculate the age of the oldest of these deposits, by considerations based on the growth of peat, and the succession of trees; but these calculations are obviously unreliable. The first forest of pines would, when it attained maturity, naturally be destroyed, as usually happens in America, by forest conflagrations. It might perish in this way in a single summer. The second growth which succeeded, would in America be birch, poplar, and similar trees, which would form a new and tall forest in half a century; and in two or three centuries would probably be succeeded by a second permanent forest, which in the present case seems to have been of oak. This would be of longer continuance, and would, independently of human agency, only be replaced by beech, if, in the course of ages, the latter tree proved itself more suitable to the soil, climate, and other conditions. Both oak and beech are of slow extension, their seeds not being carried by the winds, and only to a limited degree by birds. On the other hand the rechanges of forests cannot have been absolute or universal. There must have been oak and beech groves even in the pine woods; and the growing and increasing beech woods would be contemporary with the older and decaying oak forest, as this last would probably perish not by fire, but by decay, and by the competition of the beeches In like manner the growth of peat is very variable even in the same locality. It goes on very rapidly when moisture and other conditions are favourable, and especially when it is aided by wind-falls, drift-wood, or beaver-dams, impeding drainage and contributing to the accumulation of vegetable matter. It is retarded and finally terminated by the rise of the surface above the drainage level, by the clearing of the country, or by the establishment of natural or artificial drainage. On the one hand all the changes observed in Denmark may have taken place within a minimum time of two thousand years. On the other hand no one can affirm that either of the three successive forests may not have flourished for that length of time. A chronology measured by years, and based on such data, is evidently worthless.

"Possibly a more accurate measurement of time might be deduced from the introduction of bronze and iron. If the former was, as many antiquarians suppose, a local discovery, and not introduced from abroad, it can give no measurement of time whatever; since, as the facts so clearly detailed by Dr. Wilson show, while a bronze age existed in Peru, it was the copper age in the Mississippi valley, and the stone age elsewhere; these conditions might have co-existed for any length of time, and could give no indication of relative dates. On the other hand the iron introduced by European commerce spread at once over the continent, and came into use in the most remote tribes, and its introduction into America clearly marks an historical epoch. With regard to bronze in Europe, we must bear in mind that tin was to be procured only in England and Spain, and in the latter in very small quantity: the mines of Saxony do not seem to have been known till the middle ages. We must further consider that tin ore is a substance not metallic in appearance, and little likely to attract the attention of savages; and that, as we gather from a hint of Pliny, it was probably first observed, in the west at least, as stream tin, in the Spanish gold washings. Lastly, when we place in connection with these considerations, the fact that in the earliest times of which we have certain knowledge, the tin trade of Spain and England was monopolized by the Phœnicians, there seems to be a strong probability that the extension of the trade of this nation to the western Mediteranean, really inaugurated the bronze period. The only valid argument against this, is the fact that moulds and other indications of native bronze casting have been found in Switzerland, Denmark, and elsewhere; but