

are several convents, and many schools taught by the Christian Brothers. Germans, and Irish, are numerous.

(To be continued.)

Notices of Books and Publications.

HUMM O'CONNOR: Hints to Common School Teachers, Parents and Pupils: or gleanings from school life experience.—Geo. A. Tuttle and Co., Rutland, 1859.—12mo 144 pages. Revised Edition.

We recommend this interesting little book to all teachers. They will find it stored with useful information,—the result of long experience and meditation. We were quite refreshed by the piquant remarks of the author upon the easy and rapid process which modern scholars adopt, so as to "finish their education," and "to get a diploma." We make a short extract:—

"But, as has been suggested, modern improvement has invented a labor-saving process in the cultivation of mind. The time seems too long and the labor too hard to our visionaries, for acquiring an education. They have marked the improvements of the age: the rearing of factories to manufacture our fabrics; the construction of engines to traverse the land and navigate the water; the making of machines to stitch our garments, to cut and thrash our grain, to write our letters and transmit our thoughts in the twinkling of an eye to the ends of the earth: and hence they infer that there may be machines for cultivating mind and manufacturing thought. But all such views betray an alarming ignorance as to the nature and object of education.

"The growing of trees in the forest requires as much time now as in the days of Plato. It still requires an hundred years, even in the fertile soil of young America, for the growth of a single oak to maturity. And the growth of mind must also be gradual, it must result from the same labor and toil that it cost the hardy old Greek who wrote the Iliad, centuries ago. "The path which leads to the mount of science does not lie among flowers; and he who travels it, must climb the cold hill-side; he must have his feet cut by the pointed rocks, he must faint in the dark valley, he must not seldom have his rest at midnight on the desert sand. It is no small thing for which the true scholar strives." The oak, that king of the forest which has braved the storms of a century, as we have intimated, grows as slowly now as when the earth was young. But the mushroom, now as then, grows up in a single night. And may we not conclude, judging from our diluted literature and simplified text-books, from perverted public opinion and prevailing false theories, that this vegetable production, the mushroom, has been transplanted into our educational garden."

WILSON AND ROBB: The Metals in Canada. A manual for Explorers; containing practical instructions in searching for and testing the value of Metallic Ores, with special reference to Canada. By James L. Willson and Charles Robb, Mining Engineers. Montreal: B. Dawson and Son, 1861. A pamphlet, small 8o, 80 pages, with a Table of Chemical Tests for some of the more important metals and earthy bases.

This small volume contains very valuable information on the subject treated by the authors, and to such as are connected with mining operations, or who would devote themselves to the pursuit, will be found very useful. Messrs. J. L. Willson and C. Robb have opened an Office in Montreal for the transaction of all business connected with mining in Canada.

BRUNET: Voyage d'André Michaux en Canada, depuis le lac Champlain jusqu'à la Baie d'Hudson.—By O. Brunet, Professor of Botany at the Laval University. From the printing establishment of P. Bédelle, Quebec; 8o, 27 pages.

This is a notice on the voyages to North America of André Michaux, a native of France, made during the years 1785 to 1796, with a sketch of his life. The object of his travels was to make botanical researches and mark the locality of trees and plants peculiar to the country. He has rendered great service to science and deserves the especial consideration of Canadians, for he may be looked upon as the founder of Botany in Canada. The only work having any pre-eminence to a history of Canadian plants which appeared before that of André Michaux was Cornut's, published in 1635, under the title, *Plantarum Canadensium Historia*, which is far from being a complete flora, and it is besides defective in classification. Charlevoix gives a translation of this work into French, adding a number of plants which had been subsequently discovered. Kalm, the celebrated disciple of Linnæus and Professor of Natural History at Abo, had also visited America, in 1749-51, at the request and charge of the King of Sweden; he extended his visit even to Canada, but the fruits of his labors went to enrich the *Species Plantarum* of his great master, where to this day they are to be seen, being identified as his discoveries by the mark of the initial letter K. This would show that Canadian Botany may claim a respectable origin, as by this it is a most contemporaneous with the introduction of the science in modern times,—botany owing its rational nomenclature and classification to Linnæus. Michel Sarrazin, an inhabitant of Quebec and Physician to

the King under the French dominion, and also a Corresponding member of the Academy of Sciences, may be mentioned here as the first Canadian botanist who became renowned for his discovery of the curious plant which bears his name—*Sarracenia purpurea* (1). To the above names may be added those of the Marquis de la Gallissonnière, Dr. Gaultier, after whom Kalm called a small plant, very common in our woods,—*Gaultheria procumbens*, yielding an essential oil used in medicine; P. Boucher, Governor of Three Rivers, and several others.

Michaux was very successful in his searches for the native productions of the vegetable kingdom in Canada, but as the spots where he made his numerous and important discoveries are not always sufficiently described in his works, printed and manuscript, many of the plants have not been met with since and others are either exceedingly rare or still very little known. As most of his time was spent in travelling and herboring, he did not write much, thinking that the best way he could serve science was by introducing new plants into Europe. Still he has left a history of the oaks of America, published in Paris in 1801, containing a description of twenty species of this tree; besides notes on his travels, which are scattered through the works of his son, who had accompanied him in some of his voyages to America, and a manuscript diary which the latter presented to the Philosophical Society of Philadelphia. But his notes and herbariums have furnished materials for a work still more interesting to Canada.—the flora of North America published in Latin by the eminent botanist Claude Louis Richard, in 1803, (the year in which Michaux died,) forming two volumes 8vo, with 52 plates, and in which upwards of 1700 plants are described.

Michaux had already visited England, the Pyrenees and Spain, and had brought with him from Persia a splendid collection of plants and seeds, when the French Government desiring to introduce into France some of the trees and shrubs growing in North America, charged him with the mission of procuring them.

Instructions had been given to him to travel over the United States and collect seeds and shoots. He arrived in New-York in November 1785, from whence during two years he made excursions to New-Jersey, Pennsylvania, and Maryland. During the first year, he sent to France twelve boxes of seeds, several thousand specimens of trees, and some Canadian partridges that multiplied at Versailles. He also laid out a garden near Charleston, South Carolina, which was to serve as a starting point for his southern exploration.

In 1787, he made a journey to the Alleghany Mountains. Having ascended the Savannah to its source, and found many beautiful plants and several kinds of oaks, he also proceeded to the sources of the Tennessee, and thence returned to Charleston, having travelled 300 leagues through Carolina and Georgia. Many of his notes contain remarks on the most interesting plants he met with here and even point out the places where they were discovered in such precise terms that it would still be easy to find them out. In 1788 and the following year, he successively visited Florida, the Bahama Islands, and Virginia. On the 1st of July he arrived at *Washington Court House*, a hamlet in the latter State, which then passed for the first town in that part of the world, though it contained only "twelve wooden houses," and could afford no better cheer to the traveller than "corn bread" and "bad rum," but no "fresh meat," nor "cider."

After other excursions to different parts of the Union, attended with more or less success, he came to Canada, in 1792; having spent some seven or eight years in the United States. His first researches in passing from one country into the other, were made on both shores of Lake Champlain, where he noticed many plants,—all mentioned in his flora. Then directing his course towards Montreal, he arrived in this city on the 30th of June, and having remained here only a few days, started for Quebec. On his way down he stopped at Sorel and there found the *Rhodora Canadensis*. His sojourn in the ancient metropolis of Canada was also of short duration, as it was important he should avoid being overtaken by winter in his progress northward. Having sailed down the St. Lawrence as far as the Saguenay, he landed at Tadoussac, the first outpost of the Hudson's Bay Company in that direction, situated at the entrance of the river and at one time much frequented by the Indians for the purpose of trading. It is now a pretty village. Here he remained a few days, during which he collected some specimens. He next ascended the Saguenay in a bark canoe, and early in August reached Chicoutimi, where the river ceases to be navigable for large vessels. As his way to Lake St. John lay through an almost unexplored wilderness, and as the journey had never been undertaken except by aborigines and a few missionaries, he secured the services of a half-breed and three Indians with whom he proceeded up the River Chicoutimi and Lake Kinogami, and, after a short portage, through Lake Kinogamichichi, down the Aulnet River and Belle Riviere, thus reached Lake St. John after six days' travelling. At Lake Kinogami he found an aquatic plant, *Lobelia Dortmanna*, which has not since been met with here; its light blue corolla floats

(1) Specimens of this plant, which blooms in June, are found in abundance in the savannas near Quebec. The country people give it the very vulgar name of *petits cochons* (little pigs), from its leaves being so shaped and twisted as to resemble somewhat the form of that animal's head.