

iron-sand, the heavy residue of the washings. There were several pieces of gold weighing over an ounce. The value of this gold was \$1,825, and the whole expenditure connected with the working \$1,643; leaving a profit of \$182. In this account is however included \$500 lost by a flood, which swept away an unfinished dam; so that the real difference between the amount of the wages and the value of the gold obtained should be stated at \$682.

"It would appear from the facts here given that the quantity of gold in the valley of the Chaudière is such as would be remunerative to skilled labor, and should encourage the outlay of capital. There is no reason for supposing that the proportion of the precious metal to be found along the St. Francis, the Etchemin, and their various tributaries, is less considerable than that of the Chaudière. What is called the hydraulic method of washing such deposits is adopted on a great scale in California, and to some extent in the state of Georgia and North Carolina. In this method, the force of a jet of water, with great pressure, is made available both for excavating and washing the auriferous earth. The water, issuing in a continuous stream, with great force, from a large hose-pipe, like that of a fire-engine, is directed against the base of a bank of earth and gravel, and tears it away. The bank is rapidly undermined, the gravel is loosened, violently rolled together, and cleansed from any adhering particles of gold; while the fine sand and clay are carried off by the water. In this manner hundreds of tons of earth and gravel may be removed, and all the gold which they contain liberated and secured, with greater ease and expedition than ten tons could be excavated and washed in the old way. All the earth and gravel of a deposit is moved, washed, and carried off through long sluices by the water, leaving the gold behind."

DAWSON.—*AGRICULTURE FOR SCHOOLS.* By J. W. Dawson, LL. D. John Lovell, Publisher, Montreal.—12mo., 208 pp. Illustrated.

The name of the author is a sufficient guarantee for the correctness of the scientific principles laid down in this work. Its merits as a textbook adapted for teaching in the public schools of Lower Canada will be decided by the Council of Public Instruction, for whose approbation we believe it will be submitted.

KIRBY.—*BRITISH NORTH AMERICAN ALMANAC;* By James Kirby, M. A. John Lovell, Publisher, Montreal, 1864.—8vo., 368 pp. Printed in double columns.

Information relating to all the British colonies in America will be found in this Almanac, together with a summary of the most important events that have transpired during the last two years, a necrological table having reference to the same period, and much valuable data of a more general character. A few copies of that portion of the work relating to Public Instruction, both in Eastern and Western Canada, have been printed separately.

LANGVIN.—*ANSWERS TO THE PROGRAMMES ON TEACHING AND AGRICULTURE, for obtaining Teachers' Diplomas, &c.* By Rev. Jean Langvin, Priest. Second edition, approved by the Council of Public Instruction. Darveau, Publisher, Quebec; 1864.—12mo., 51 pp. Price 25 cents. For sale by all Booksellers and by the School Inspectors. The same work in French.

FERLAND.—*BIOGRAPHICAL NOTICE of Joseph Octave Plessis Bishop of Quebec, translated by J. B. French from the original, published by l'Abbé Ferland in the "Foyer Canadien,"* G & G E. Desbarats, Publishers, Quebec.—8vo., 177 pp.

Mr French has added a preface in which he very favorably notices the French Canadian literary movement. The work is embellished with a photograph taken from a fine portrait by James.

LA REVUE CANADIENNE; E. Sénécal, Publisher, Montreal.—8vo., 64 pp.

The first number contains an article on *Crédit Foncier*, by Mr. Provencher, the first chapters of a romance by Mr. George de Boucherville, part of an article on rationalism by Rev. Père Aubert, a sketch of life in modern Rome by Mr. Bourassa, and bibliographical notices by Messrs. de Bellefauille & Royal. Mr. Provencher handles the subject of *Crédit Foncier* (Landed Credit) very ably, showing that in France it has not attained the object its promoters had in view, for although it has succeeded as a bank or speculation, it failed altogether as a means of relief to the agricultural classes. It has drawn more capital to Paris than was circulated by its means in the rural districts. From 1853 to 1861 more than two thirds of the loans were made in the Department of the Seine. The author, quoting from many European authorities, proceeds to show that loans to farmers should be based on the credit which belongs to labor rather than on that founded on mortgage. It is not so much the absolute want of capital in the country, as the unprofitable employment of a large part of what is actually there that tends to embarrassment. Thus, it appears by the census of 1861 that the vehicles kept for convenience or pleasure by our population, were valued at \$3,771,795, a sum amounting to more than half the total value of the implements of agriculture, which is put down at \$7,357,202. Capital obtained through credit must be used so as to give a return, otherwise its employment only serves to ruin its temporary possessor. This principle is so generally recognized that when Sir Robert Peel obtained a law in 1846 to permit proprietors to borrow £4,000,000 sterling for agricultural drainage, all possible precautions were taken to

prevent the money destined to this improvement from being diverted to any other object.

D'AVEZAC.—*Bref récit et succincte narration de la Navigation faite en MDXXXV et MDXXXVI, par le capitaine Jacques-Cartier aux îles de Canada, Hochelaga, Saguenay et autres.* Printed from the original edition (1545), and showing the various readings of the MSS in the Imperial library; with illustrations and a short, succinct historical introduction by M. d'Avezac. Tross, Publisher, Paris; 1864. Large 12mo., xvii, 69 pp.

No student of Canadian History should be without this book; nor should those among our readers who are so fortunate as to possess the complete collection of Cartier's voyages reprinted by the Historical Society of Quebec—already become exceedingly rare—lose any time in making so valuable an addition to their libraries. The editor's introduction and his frequent reference to the manuscripts, render this edition doubly valuable. We translate the following extract from the preface:

"No people seem to have had less regard for the place they were entitled to occupy in the history of discoveries than the French; none have manifested less concern for the renown their adventures by sea and land might have given them; and while other nations loudly flourished their trumpets in honor of their own merits, we have suffered the recollections of voyages less ostentatiously performed, at the same epochs, by our ancestors, to be lost; and now listen with wonder to the occasional revelations of strangers.

"Who, for instance, can give us any information regarding the French vessel that touched at Canton in 1521, and whose arrival at a time Portugal and Spain assumed to have the exclusive right of trading in those seas, is chronicled in the annals of China? Many other adventures, undertaken at an early date, have no doubt been forgotten. The official enterprises, or those which enjoyed the patronage of the sovereign, alone escaped contemporaneous and subsequent oblivion; yet, even regarding many of these, it is only with the utmost difficulty that a few fragments of the narratives in which they were recorded can be collected together.

"This is precisely what happened in the case of the expeditions undertaken by the celebrated Breton navigator who planted the French flag on the spots where Quebec and Montreal now stand. Of his three voyages to Canada we are indebted for the history of the first to an Italian collector (Ramusio) whose version we willingly accept as correct; the narrative of the third we owe to an English collector (Hakluyt) who saved the mutilated fragments in a translation that must also be looked upon as exact. It is only the original account of the second voyage which has come down to us in the words of one of Jacques Cartier's companions—or in his own, and of the edition struck off at Paris in 1545, collectors know of but one copy—that which is preserved in the British Museum. For the sake of the amateurs who value these old relics, it became necessary to go thither and make an exact copy—which copy is now reproduced with scrupulous care in the volume at the commencement of which we write these lines."

PERRAULT.—*Exploration de Québec au lac St. Jean.* By J. Perrault, M. P. P., 8vo., 57 pp.,—double columns.

This work is reprinted from the *Revue Agricole*. The subject is interesting, and much importance attaches to the question of colonization, which is considered in connection with the scenes visited by the expedition. The author makes the following reflections on the prospects of settlement on the shores of lake Jacques Cartier,—situated between lake St. John and Quebec:

"We believe, then, that at the elevation of lake Jacques Cartier the ripening of crops would be so precarious that the general cultivation of cereals would be found impossible in practice, and this without taking into account the difficulty of securing means of communication or the sterility of the soil. Yet, we believe that in the deep valleys, on the banks of rivers where alluvial soil is to be found and where the mountains afford shelter against the prevailing winds and the blighting effects of the nocturnal radiation, or where the vicinity of the water equalises the temperature during the twenty-four hours, the cultivation of cereals would be possible on a small scale, merely sufficient to supply the colonists; and even to obtain this object it would be requisite to take advantage of the most favorable time for sowing. Nineteen-twentieths of the cultivated land of these regions should have to be devoted to meadows and pastures, as in Switzerland, where only a few small wheat or rye fields are to be seen in the deep and narrow valleys which shelter the hamlets, while numerous herds feed on the mountain sides, following the melting snows until the whole country is turned into an immense pasture.

"This in our opinion is the only possible future in store for the highlands of lake Jacques Cartier. A hardy population of mountaineers may settle in little communities over this wide expanse of country, and tourists, while wandering over their hills, may recall the most renowned scenery of Switzerland; but to hope for a dense population living in easy circumstances, is to dream of an impossibility."

The author in concluding suggests as practical means of encouraging settlement on the Saguenay, the connection of lake St. John with the judiciary centre—of the *chef-lieu* of the county with the more remote parishes by means of good roads—and of Chicoutimi with Quebec, by a line of steamboats touching at all the principal points on the North shore.