

Christianizing of the Indians, four thousand of whom he vaccinated in his travels—saving thousands of lives.

"The lands about New Westminster are covered with the most enormous growth of Douglas pine trees 300 feet long, 10 to 15 feet through, 20 feet with a limb, they are now unsaleable and to clear the land would cost \$100 an acre. The country is all rough and by no means generally good for farming, but at present prices money is made by farming. However, with her inexhaustable resources of coal, iron, copper, silver, and gold, and her position as the terminus of the road from the Atlantic, I feel assured that New Westminster will be one of the finest towns on the continent.

"One of the chief products of the colony is in such abundance that my word has been doubted in reference to it, I mean salmon. In crossing the Colquhalla the horses feet struck the fish, and a mill stopped because the mill race was filled with them. The Hudson Bay Company used to export thousands of barrels till the gold fever raised the price of labor too high.

"The elevation of the city gives magnificent scenery. Views of Mount Baker 10,000 feet high, Gulf of Georgia, bend of the Fraser river, and the Mountains of Washington Territory covered with everlasting snow, give it a picturesque beauty and interest never to be forgotten."

MONTHLY SUMMARY.

EDUCATIONAL INTELLIGENCE.

—Rev. Mr. Beausang is at present in Montreal collecting subscriptions for the Dublin University. He has been very successful, it is said, at Quebec and in this city, having obtained among other subscriptions, \$1000 from the Seminary of St. Sulpice, and \$100 from Hon. A. Quesnel.

—The Laval University is about to establish a botanic garden, a lot of land situated on the Grande-Allée Road, in the environs of Quebec, having been secured for the purpose at a cost of \$6,250.

—The Laval University met with a serious accident on the night of the 24th March last, the wing of the Seminary situated nearest to the University building having been destroyed by fire. Some of the students who slept in this edifice were in great danger of losing their lives, and their escape is due to the activity and presence of mind of two of their number, Messrs. Decelles and Humphrey who improvised a means of retreat from the impending peril. The library of the students in divinity, containing 3000 volumes besides precious manuscripts, was lost. This is the third conflagration which has overtaken this institution, the first having taken place in 1701, and the second in 1705.

FINE ARTS INTELLIGENCE.

—The exhibition of the Art Association of Montreal came off very successfully at the Mechanics' Institute. This exhibition, the third held by the Association, was opened on the 27th February by the Lord Bishop of Montreal and continued during several weeks.

—It is intended to render more complete the collection of paintings to be hung in the splendid gallery attached to the new Parliament building at Ottawa. Mr. Hamel has accordingly just executed the orders he had received from Parliament for portraits of Champlain, Charlevoix, Wolfe, Montcalm, Chevalier de Lévis, General Murray, and Messrs Neilson, Boardman and Andrew Stuart; and he is now engaged on a full length portrait of Chancellor Blake.

SCIENTIFIC INTELLIGENCE.

—A modern writer on nature and art has spoken of the gradual, but sure decrease of body in the Alps mountains: his thoughts and observations the traveller may easily verify. It is written of man that they do all fade as the leaf. The hills, also, are wasting and wearing away, and slowly running down to the sea. The valley is a witness to the mountain's weakness. The glacier pulverizes the rock, and every mountain streamlet carries down its contributions to the plain, perhaps each drop a sand-grain. The waste of the mountains is forming new earth. Nearly every Alpine lake is proof of this. The Rhine deposits in Lake Constance have formed a large delta. What was formerly a large bay in Lake Lucerne is now a marsh, and in another part the rocks that one little brook has brought down have nearly stopped navigation. The earth that the Rhone

has gathered has shortened the southern horn of Lake Geneva nine miles. By observing and weighing the amount of sediment in a certain quantity of water taken from the glacier streamlet, the number of tons which Mont Blanc annually loses was at once estimated. It thus becomes a matter almost within the range of mathematical calculation to compute the number of years when the mountains shall have yielded their strength, and when the "hills shall have been made low."—*ib.*

—By means of a photographic process, copies of drawings can be made rapidly and cheaply of the same size as the originals. The original drawing is in no way injured by the process, and the copy is produced by simple superposition over the chemically prepared paper, and is a positive copy direct without the intervention of a negative.—*J. of Arts and Manufactures, U. I.*

—The *Cercean*, a paper published in Port Louis, Mauritius, contains the following extraordinary announcement according to *Galignani*:—"M. Chambay has succeeded in fixing the colours of the objects. The picture is taken instantaneously, as in other kinds of photography. The modelling and relief are marvellous: the blood appears to circulate beneath the skin; the colour is fixed; and the portraits, which present a surprising resemblance are equal to the finest pastels, miniature, or water-colour drawings. M. Chambay is about to remove to Paris."—*J.*

—Recently a pneumatic dispatch apparatus was tried in Manchester in connection with telegraphy. Owing to the increase of their business in Manchester, the Electric and International Telegraph Company has lately taken extensive premises in York street, and opened a central station there. In order to facilitate the rapid dispatch of messages from the branch offices at Ducie Buildings (Royal Exchange) and No. 1 Mosley street, it has been deemed advisable to connect these offices with the central station by means of the pneumatic system, the same as is adopted by the company in London and Liverpool. Between the branch offices above mentioned and the central station leaden pipes with an inside diameter of 1½ inches have been laid down under the streets. The leaden pipes are made perfectly air tight, and are inclosed in 2 inch iron pipes to protect them from being damaged. At the central station there is fixed in the basement a small high-pressure beam engine, and connected with it a double-action air pump, 17 inches in diameter and 15 inch stroke. The pump is continually at work exhausting the air from a cylinder 8 feet long and 4 feet in diameter, which is styled the vacuum cylinder. The pipes which pass under the streets from the branch office, are terminated in the instrument room on the top floor of the building, and the pipes from the vacuum cylinder are also carried to the same place, and they can be put in connection by simply opening a valve. The carriers which travel through the pipes are made of gutta percha covered with felt. They are about five inches long and of a diameter nearly equal to that of the pipe. They are hollow inside for the purpose of containing the messages. Electric bells are employed to give the necessary signals for the working of the pipes.—When the officials at the Ducie Buildings office wish to send a "carrier" they place one in the mouth of the pipe and signal the central station by ringing its bell. The clerk in attendance at the latter place by moving a small lever, puts the pipe in communication with the vacuum cylinder. The air in the pipe then rushes into the vacuum cylinder, and the "carrier", having the ordinary atmospheric pressure behind it, is propelled through at a speed of from 35 to 40 miles an hour. On the arrival of the "carrier" at the central station it strikes against a spring buffer, which, by a simple self-acting contrivance, cuts off the communication between the pipe and vacuum cylinder, and the carrier falls from the valve on to a counter prepared to receive it. To send a "carrier" from the Mosley street office the action is precisely the same. By using a second chamber, and compressing air into it, a force is obtained for blowing the "carriers" from the central station to the branch offices, so that the pipes can be made available for carrying in both directions. The branch office in Mosley street is about 320 yards from the central office, and the distance of the Ducie Buildings from the branch office, is 510 yards. The time occupied by a "carrier" in traversing the shorter distance is 22 seconds.—*Engineer.*

—A singular circumstance was communicated to the French Photographic Society at its last sitting, by Mr. Placet. The magnesium light is so powerful, that when placed at a short distance from the object-glass, it will melt its surface. An object-glass spoilt in this way was produced by him at that sitting. Photographers had better take the hint, and not bring the light too near the apparatus.—*ib.*

—According to a report to the Italian Government the coral fisheries, which are a great resource for the poorer classes, employ 460 boats, manned by about 4,000 men. The fishing implements, pay of the men, board of the crew, etc., absorb annually about 6,000,000 francs, distributed among more than 6000 persons of different professions. About 160 tons of coral are annually introduced into the kingdom of Italy. The articles made of it and exported are to the value of from 12,000,000 to 16,000,000 francs yearly, principally sent to Asia, the interior of Africa and America.