

structure appears to be in all particulars suited to its purposes. Its entire cost will be about \$90,000. There is ample accommodation for six hundred children.

## SCIENTIFIC INTELLIGENCE.

—The alleged coal discovery, at Bowmanville, of which we spoke in our last number has since been proved to be a fraud similar to the one attempted at St. Paul's Bay, in 1831, related in the same number. One of the parties to that shameful act has acknowledged his guilt.

—Speaking of Dr. Hare we said *who had been for more than half a century, &c.* Our printers thought fit to drop the word *half*. It was so *unimportant* a word!

—The twelfth meeting of the American Association for the advancement of science, opened at Baltimore on Wednesday, the 28th of April last. In the absence of both the President and Vice-President, Professor Caswell, the presiding officer of the preceding year, took the chair, and by vote, was subsequently requested to preside throughout the meeting. As the spring is less favourable for a scientific gathering than the summer, the number present was not quite so large as usual and this had a corresponding effect on the scientific contributions. The Mayor, Maryland Institute, Historical Society, and many generous citizens of Baltimore contributed liberally to the interests of the occasion. The meeting adjourned on Tuesday, the 5th of May, to meet at Springfield, Massachusetts, on the first Wednesday of August 1859. Professor Stephen Alexander, of Princeton, was chosen President for the ensuing year, and Professor Edward Hitchcock, of Amherst, Vice-President. 32 papers on astronomy, physics and mathematics; 9 on meteorology; 15 on geology and geography; 18 on chemistry, mineralogy and geology, and 27 on miscellaneous subjects, chiefly on philology. We believe the proportion of papers on geology was smaller than usual. Among the titles of all these papers we notice the following: On the tides of Saturn's Rings, by Benjamin Pierce; on the results of Dr. Kane's magnetic observations in his second arctic expedition, by A. D. Bache; on the pendulum with a description of an electric clock, by A. P. Barnard; in advocacy of a great systematic chain of simultaneous meteorological observations throughout the whole of the American continent, by Major R. Laghlan, now of Cincinnati, late of Montreal; on the climate of North America, by J. B. Hurlbutt; on the description of the coal beds near Fort Belknap, in Texas, with the subjacent and superincumbent strata and the discovery of fusulina limestone in the same locality, by Dr. Francis Moore; on the remains of the American mastodon, found in Long Island, by J. C. Buevoort; on the geological map of Pennsylvania, by H. D. Rogers; on the analysis classification and representation of the sounds of the english spoken alphabet, by Wm. D. Whitney; on the in-ensable gradation of words in comparative philology, illustrated by five charts, by J. P. Lesley; on signs of significance like symbols for a language, in fa-ciful rock-work, the stone spears and arrow heads of the Catawbas, by J. H. Gibbon; on distinct tones and accents of voice with special signs explaining sensible emotions from mute animals to each other, by J. H. Gibbon; on the grape culture in Missouri, by G. C. Swallow; observations upon the practicability of reaching the North pole, by J. J. Hayes; on the application of the principles of caloric in the construction of warm air furnaces, by James Bolton; on the confirmation of a newly determined law of mortality for early childhood, by E. B. Elliott; on some points of inquiry that may be properly introduced in the federal census, by T. B. Hough; concerning the number of telegraphic conductors that may connect with a single battery at an extreme station without sensible interference, by E. B. Elliott; on the telegraph and the telegraphic lines of the world by L. Turnbull; on the production of local anaesthesia by a novel application of current electricity, by C. P. Williams; on the calculation of the earth work of railroads, by W. M. Gillespie.

—Mr. Galvert's paper "On recent Scientific Discoveries as applied to Arts and Manufactures," was especially interesting from its practical applications. Coal-tar has been of late a fertile mine of discovery to the chemist; and now from the alkaloids of coal-tar and from naphthaline, substances are obtained which, in dyeing, give a beautiful purple. They are called nitroso-pheneline and nitroso-naphthaline; and their colour has the invaluable property known to economical house wives as *fast*. But this is not all; the coal-tar yields also safflower pinks and cochineal crimson, with variations into violet, chocolate and red; and here again the imitation of safflower colour stands soap and light, whilst safflower do not! Next, we hear of a *magnificent crimson colour*, called murexide, obtained from the reader will hardly guess—from guano! This remarkable result may be said to have been initiated by Prout's discovery of purpate of ammonia in the faces of serpents: hence years of patient research by the expertest of chemists have been spent in working it out. And for green, dyers are no longer dependent on combination of blue and yellow, but on a substance new to the english market, imported as green indigo from China, and in the use of the green colouring matter of plants—chlorophyll, as botanists call it. This product is actually obtained from grass by boiling, and a course of chemical treatment which causes a green precipitate to fall. . . . Mr. Galvert further made public a process for preparing sulphurous acid on a large scale without danger, at the rate of thousands of gallons a day if necessary; and he finds that sulphurous acid is an excellent refiner in the manufacture of sugar; and that if brewers will be careful to wash their casks and coolers with a

solution of this acid, they will not have to complain of their beer turning sour.—*Chambers's Journal*.

—Dr. James Dean, who had distinguished himself as a geologist and was engaged in a work relating to the bud-tracks in the sandstone on the Connecticut valley, died at his residence in Greenfield (Massachusetts) on the 9th instant.

## ADVERTISEMENT.

## UNIVERSITY OF BISHOP'S COLLEGE.

MICHAELMAS TERM.—The commencement of the 14th year of this Institution begins on SATURDAY, September 4th. Candidates for admission are requested to give early notice to the Principal, the Revd. J. H. NICOLLS, D.D.

Lennoxville, July 15, 1858.

## JUNIOR DEPARTMENT

OF

## BISHOP'S COLLEGE AND GRAMMAR SCHOOL.

The junior department reopens on TUESDAY, August 31st under the charge of the Revd. J. W. Williams, M. A. Rector, assisted by Messrs. A. D. Capel and J. J. Procter.

For information apply to the Rector, the Revd. J. W. Williams, Post Office, Quebec.

Lennoxville, July 15, 1858.

THE ANNUAL  
PROVINCIAL AGRICULTURAL  
AND  
INDUSTRIAL EXHIBITION  
OF LOWER CANADA,

TO BE HELD

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WILL BE OPENED TO THE PUBLIC

On the 30th. September and 1st. October.

All entries must be made on or before the 20th September. Animals and products for Exhibition must be on the ground on Wednesday, 29th September.

The industrial department will be opened on Monday the 27th Sept. at 9 o'clock. Machinery or articles requiring motive power, must be on the ground that day; all other articles must be delivered at the building before 3 o'clock P. M. on Tuesday.

For particulars see prize list or apply for the AGRICULTURAL DEPARTMENT to J. PERRAULT, Sec. Board of Agriculture. INDUSTRIAL DEPARTMENT, to A. STEVENSON, Mechanics Institute.

J. PERRAULT,  
Sec. Board of Agriculture.

The terms of subscription to the "Journal de l'Instruction Publique," edited by the Superintendent of Education and M. Jos. Lenoir, will be five shillings per annum and to the "Lower Canada Journal of Education," edited by the Superintendent of Education and Mr. John Redger, also five shillings per annum.

Teachers will receive for five shillings per annum the two Journals, or, if they choose, two copies of either the one or the other. Subscriptions are invariably to be paid in advance.

1,000 copies of the "Journal de l'Instruction Publique" and 2,000 copies of the "Lower Canada Journal of Education" will be issued monthly. The former will appear about the middle, and the latter towards the end of each month.

No advertisements will be published in either Journal except they have direct reference to education or to the arts and sciences. Price—one shilling per line for the first insertion, and six pence per line for every subsequent insertion, payable in advance.

Subscriptions will be received at the Office of the Department Montreal by Mr. Thomas Roy, agent, Quebec, persons residing in the country will please apply to this office per mail, enclosing at the same time the amount of their subscription. They are requested to state clearly and legibly their names and address and also the post office to which they wish their Journals to be directed.

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