

THE BRITISH ASSOCIATION closed its proceedings on Wednesday last at Belfast. Some of the papers read were of great scientific and general importance. The "Association Sermon," on Sunday week, was preached by Dr. Whately. Mr. Hopkins is appointed President of the next meeting: which is to be held at Hull: the other towns competing for the honour were Leeds, Brighton, Glasgow, Liverpool, and Dublin. The total of money-grants recommended amounts to £355, of which sum £200 is appropriated for the maintenance of the New Observatory. The remainder is to be appropriated in small sums, principally for the prosecution of investigations already commenced. The establishment of an Observatory in the Southern hemisphere is again to be pressed on the notice of the Government. The financial success of the meeting at Belfast has been very striking as compared with the meeting at Ipswich. The total amount received for tickets at Belfast has been £1,106; at Ipswich it was £711. The number of Associates at Belfast has been 910, and of ladies, 292; the respective numbers at Ipswich were 246 and 141. Thursday was set apart for excursions to various points of the coast; the most important being to the Giant's causeway.

The Cholera in Europe.—The official returns of the Cholera in Posen are up to the 7th inst. On that day there were 74 cases and 22 deaths; 553 remained under treatment. Returns from other towns are less in the total number.

The returns from Warsaw are to the 5th Sept. They give 43 new cases on that day and 30 deaths; 62 were declared cured, and 254 remained under medical treatment.

Whenever the disease has broken out, the province of East Prussia has suffered severely from it. The population is a little above 2,000,000. In 1892 the epidemic carried off 18,186; in 1836, 4,606; in 1848, 10,148. The bloodiest war would not cause so great a loss of life.

Scientific Excursion in a Balloon.—Some of the members of the British Association for the Advancement of Science, recently made an ascent in a balloon along with Mr. Green, for scientific purposes. They took up various instruments with them, and went up 19,200 feet. They had exhausted tubes and took down air in them from that height, in order to analyze it. No cloud was seen above them, all was clear and cold, 25 deg. below the freezing point.

Immigration from Ireland.—The Coleraine (Ireland) Chronicle says:

"Last year the emigration from this country was 6,000 souls per week. This year the number is nearly 8,000, and the tide is still unbroken. There is no sign of cessation or diminution, but the crowd to every port press on, drawn by friends and hopes beyond the Atlantic, pressed forward by the want and misery behind."

HEALTH AND EDUCATION.—The official statistics of the French departments prove that the average duration of human life is from six to eight years longer in the districts which are the most advanced in respect to education. In like manner, the inhabitants are most healthy in those departments where agriculture is most improved; manufactures most extended, and commerce most active.

The Queen of Spain has been reviewing her troops at San Ildefonso. The men received 16,000 segars as a mark of the satisfaction of their royal mistress.

UNITED STATES.

BUFFALO, Sept. 20.—The attempt of Mr. Maillefert to reach the wreck of the Atlantic was entirely successful. John Green was the diver; who went below from the deck of a vessel, one hundred and forty-four feet from the surface of the water. There was no difficulty and the pipes worked well, but nothing was done in consequence of the roughness of the water.

The coloured people of Ohio held a Convention at Cleveland on the 9th, which was attended by some five hundred of their number. They discussed the means of improving their own condition, especially by instruction in the Mechanical Trades, to which they have now great difficulty in gaining access, owing to the bitter prejudices against them. Their proceedings were orderly, pertinent and dignified. The Forest City says: "Several Southern gentlemen, planters, who were present yesterday at the colored people's Convention, expressed great gratification at the ability displayed by many of its members, and one of them who owns 1,200 acres of land and 150 slaves in Mississippi, declared that if he thought it would on the whole better the condition of his slaves, he would give them all free papers at once."

GREAT TRAIN.—A train of fifty two cars left Cleveland, Ohio, for Pittsburgh, Pennsylvania, on Friday evening last, and carried 5000 passengers.

The Largest Merchant Ship in the World.—Mr. McKay of East Boston, is now at work upon a copper ship, which will surpass in size and sharpness every merchant ship now afloat or known to be in the course of construction. She will be 300 feet long, have 50 feet breadth of beam, 28 feet depth of hold, with three decks, and will register over 3000 tons. She will be diagonally braced with iron, and built in every particular equal in strength to the best of ocean steamers. Her model, in point of beauty, is the wonder and admiration of all who have seen it. She will have 4 masts, with Forbes' rig. Mr. McKay builds her on his

own account, and will sail her too, if he does not sell her.—*Boston Atlas.*

Australia Express.—Berford & Co., No. 15, State street, are to despatch their first express messenger to Port Philip and Sydney on the 7th of October.—*Boston paper.*

Death of Vanderlyn, the Artist.—John Vanderlyn, an eminent American artist, died at Kingston, New York, on the 23d ult. The New York Mirror says:—

"He was nearly seventy-six years of age, and his name will ever be intimately associated with the early history of American Fine Arts, to which his works have eminently contributed.—His Marius among the ruins of Carthage, Ariadne, Landing of Columbus, &c., are well known in the art-world, and place him in a high rank among painters. Napoleon awarded him a medal for his Marius."

The Hartford *Courant*, states as a fact, that a traveller, not long since, was passing through a section of the town of Chester, Mass., where there appeared to be quite a settlement, and saw a school-house with no doors or windows. He enquired "if the School Master was abroad," and was informed, by the driver of the stage, that in the whole school district of more than two miles in extent, there was not a child young enough to attend school.

CHARLESTON, Sept. 29.—**Yellow Fever.**—Eight deaths from yellow fever occurred in this city for the twenty-four hours ending at nine o'clock on Tuesday evening. During the week there have been forty three deaths from the same cause.

NORFOLK, Sept. 27.—A disease resembling the cholera or yellow fever, has suddenly broken out in Water-street, in this city. From thirty to forty cases have already occurred.

From the West Indies.—Captain Boyd, of schooner Isabella, from Port au Plat, St. Vincent, reports business dull and markets overstocked with American produce. The inhabitants were daily expecting an attack from Souloque.

Seven young ladies received the degree of *Misses of Arts* a week or two since, at the commencement of the Ohio Female College.

The first locomotive seen in the United States was imported from Liverpool, and is still in existence. A correspondent of the Philadelphia *Ledger* says it has recently been repaired, and is now running on the Little Schuylkill Railroad. Its antiquity and the singular arrangement of its machinery, make it a great curiosity.

PROVINCIAL.

His Excellency the Lieutenant Governor's Proclamation, calling the Provincial Legislature to meet at Fredericton for the dispatch of business, on Thursday the 21st inst., was issued in a Royal Gazette Extra last week.

It is understood that no business will be brought forward at the coming session, except such as is strictly connected with the construction of Railways in this Province.

THE RAILWAY SURVEYS.—The *New-Brunswick* says, "Several parties are now engaged in surveying to the Westward, with the view of ascertaining the best route from this City to the American frontier; and a party of men left here yesterday morning, to be employed under Mr. Campbell, C. E., in surveying a Railway route direct from the Bend of Petecodioc, through Richibucto to Chatham, on the Miramichi."

RAILWAY STATIONS.—We understand that there are to be nine Stations on the road between St. John and the Nova-Scotia line, the first, from this City, at or near the Nipe-mile House; the second, at Hammond River; the third, at Hampton; the fourth, at the Finger Board; the fifth, at Sussex Vale; the sixth at the head of Petecodioc River; the seventh, at Pittfield's; the other two between the Bend and the Nova-Scotia boundary.

It is also rumoured that the Railway Terminus and Station at St. John will be erected on the Flats at Courtney Bay, and that the Iron Tubular Bridge across the Falls is intended to rest upon the upper Island, at the commencement of the wharfed.—*Id.*

Two trunks of books for the Legislative Library at Fredericton, were received last week per ship Acteon, from London, the cost of which was £146 sterling.

A contract has been signed by Mr. Lorenzo F. Langan, for the erection of a Fire Bell Tower, or Campanile, over the Western entrance to King's Square, for the sum of £256. A suitable Bell is being made in New York.

THE NEW CURRENCY LAW.—It seems not yet to be generally understood, that the new Law, which took effect on the 1st October instant, establishes the value of the English *Crown-piece* at six shillings and one penny, and the *Half-Crown* at three shillings and one half penny; and as those coins are now therefore a legal tender at those rates, they must circulate at their increased value, and cannot be refused when so tendered. There is no alteration in the value of the English *Shilling* or *Sixpence*; but the *Sovereign* is now a legal tender at twenty-four shillings and fourpence currency. Parties paying or receiving *Sovereigns* in gold, in sums over £50, may insist on the coins being valued by weight instead of by tale; and on deducting one half-penny for every quarter grain short weight, over two grains in each coin. Silver is not a legal tender in sums over fifty-shillings, nor copper in sums over twelve pence.

THE BELL BUOY.—The Iron Bell Buoy, (similar to the one off the port of Liverpool, England,) which was recently imported by the Ship *Pilgrim*, having been put together and completed, was towed out of the Harbour on Tuesday last, by the Steam-tug *Conqueror*, and moored about two miles South-West of Partridge Island, under the superintendence of L. Woodward, Esq., Surveyor of Light Houses, and Thomas Reed, Esq., Harbour Master. During the night, which was somewhat stormy, the bell was distinctly heard in the City.

The Bell Buoy will be of infinite advantage to the trade of the port. The bearings and distances from it to the adjacent headlands have been taken by officers engaged in the naval survey of the coast, and will be published next week for general information.—*Courier.*

The great Provincial Agricultural Exhibition of Canada, was opened at Toronto on the 21st inst. The Exhibition, it is stated, surpasses all its predecessors in stock, agricultural implements, mechanics' machinery, and Provincial productions generally. Toronto was full of visitors from all sections of the Province, from the United States, &c., and the cry was—"still they come."

The Hon. Alex. Keith has been elected Mayor of the city of Halifax for the ensuing year.

Mr. Cumming, an eminent Veterinary Surgeon, and family, have just arrived here in the brig *Albion*, from Aberdeen. Mr. Cumming, it is stated, will establish himself in this city, under the auspices of the St. John Agricultural Society, to whom he has been highly recommended by Professor Dick, of Edinburgh; and as no member of his very useful profession has hitherto resided in St. John, we have no doubt that our community will find him a valuable acquisition.

NOVEL EXPORT.—By the "Admiral" on Friday, Mr. Geo. J. Pine, sent 240 boxes containing soap and Digby herrings to Boston, there to be re-shipped for Canton. If soap can be exported from St. John more profitably than from the United States, our soap-boilers have made a great advance. It is something novel and worthy of notice to find any manufactured articles exported from New Brunswick. We trust that it will not be long so.—*Free.*

The Rev. Dr. James Somerville, late Professor of Metaphysics and Divinity in King's College, Fredericton, died in Scotland, on the 10th ult.

ESSAY ON MIND.

[CONTINUED.]

We see then, the covering of different animals, which at times falls off, and again in due time is renewed, adapted to the variations in temperature of the seasons, and the part of the creation in which the animals live, as a means of warmth, or defence from attack—their various colours, too, radiating more or less heat, and enabling the animal, by its resemblance to the colour of the ground on which it moves, to steal more quietly on its prey, or to retreat from the attack with greater security; the varieties of shell, fur, hair, wool, and bristles; the feathers of birds, too, the scales of fishes, and the horny covering of insects. We remark the increase of fur in winter; the fact that the wool of sheep passes into hair, if they be conveyed to warmer climes, and that the hair of dogs will become woolly, if they remain in a colder latitude than their natural clime; and we find a special adaptation in the thickness of the fur in the bellies of animals, which take the water, compared to the covering on their backs—and also the reverse with regard to animals avoiding water. We see, too, the variety of mouths, claws, probosces, horns, and hoofs—the different incisor, canine, and molar teeth, adapted to the procuring, and preparing for digestion, the food which nature offers; the digestive organs of gaminivorous and carnivorous animals, and the chemical process carried on by the agency of gastric juice, and its nature in some cases solely adapted to dissolve the vegetable food of others; the milk supplied to the off-spring; the forward or backward position

of the external ears, calculated as a means of attack, or defence, enabling the various beasts of prey to catch the sound of the retreating animals they pursue, or to give the more feeble in their nature, and those preyed upon, timely warning of the approach of danger—the comparative activity or capability of motion too, in animals, as a means of defence or attack, and their proportionate strength—their varied vision—the power that many beasts and birds possess of closing altogether the pupil of the eye—the prominence, number, and position, of the fixed eyes of many insects, and the number of lenses they contain—the extraordinary power of scent—the capability of remaining for more or less time without food—the various length of the intestines in herbivorous and carnivorous animals—the form of the stomach—the feathers of birds, too, as a means of covering, beautifully constructed in their form, colour, and substance, and in their combining strength with lightness, and suited to that order of the creation to which they have been applied—the layer of dark down, close to their skin, preventing the escape of their animal heat—the wonderful provision that the part of the plumage first wanted by the young bird, is the first to appear, and come to any degree of perfection—thus, down or wings as a means of warmth or of flight, adapted to the habits of the bird—their varied feet and talons—their sharp, hooked, broad, long, tapering, and serrated bills, adapted to their manner of obtaining food by pecking, cracking seeds, catching fish, tearing the flesh from the bones of animals, or acquiring insects by suction. The use of the gizzard in granivorous and herbivorous birds, to grind their food, as the gastric juice will not act on it in an entire state. The character of the bones of birds, strong in their nature, and yet not incommencing them in their flight by unnecessary weight. The oviparous character, too, of birds—an evident design, that their gravid uterus may not impede them in their flight. The egg, too, is a collected instance of millions of wonders in the nature of adaption—its oval form permitting greater exposure of surface to the warm skin of the parent—the hard texture of the shell, and its arched form, calculated to support weight—its porous nature to admit air—the position and construction of the embryo—seeing, that as it is of less specific gravity than the white, it rises with every turn of the egg, and is thus in a position close to the breast of the hen—the portion of air, too, contained for the use of the young bird. We notice again, the comparative length of the tails and legs of birds as rudders wherewith to steer their course—the shortness of one being compensated by the length of the other—the amazing quickness of sight in birds, and the distance at which by their eye, or power of smelling they discern their food; the difference in construction of their wings, too, causing more or less noise in the motion of birds which steal quietly on their prey; and the glands with which they supply themselves with oil in pluming their feathers.

We may remark, too, the fins of fishes, serving to favour an ascending, falling, progressive, or retrograde motion; their formation and substance beautifully adapted to the element in which they move; their power of altering their specific gravity, by means of contracting or relaxing the muscles of their air-bladder; the formation of the eye, and its position in many cases in the back, to enable the fish to look up without moving; the power of their tails, too, as a means of motion. And thus in every grade, down to the lowest in the scale of created beings, we find more or less of natural relation to the inanimate world, and contrivances to answer special peculiarities in their formation; and although we perceive this relation generally, it may not be amiss to notice some particular special cases of design, by way of compensation, in the accommodation of contrivances to answer some remarkable organization, where defects would appear to exist. Thus, the *ligamentum nuchæ* in the necks of some animals, to enable them to support their heavy head, and to increase their power, when depending on their heads as a means of offence and defence; the construction of the eyes of moles; the bag of the opossum; the stomach of the camel; the proboscis of the elephant—to compensate for the shortness and stiffness of his neck; the spider's web, assisting the insect to entrap its prey, which consists chiefly of flies, and which, from the want of wings, it could not otherwise obtain; the position, too, of eight eyes in the spider's head, so arranged as to compensate for their being fixed, and without