British Association for the Advancement of Science.

It has been our custom every year to present to our readers some interesting extracts from the proceedings of both the American and the British Associations for the Advancement of Science, and we anticipated the pleasure of doing so this year. We have been disappointed in respect to the former, which was to meet at Cleveland, Ohio, last month, but owing to the cholera being prevalent in some of our western cities, the officers postponed the meeting and although in our opinion they might and should have changed the place of meeting to Baltimore, they have not done so, we therefore can only present some extracts from the proceedings of the British Association.

This respectable body met at Belfast, in Ireland, on the 1st of last month, Sept., in the Queens College, the chair being filled by the President, Sir Roderick I. Murchison, the famous geologist; many very useful and interesting papers were read.

An Ancient Lens.—Sir David Brewster made and confirmed a statement which he properly declared, was "of so incredible a nature that nothing short of the strongest evidence was necessary to render it at all probable"—which was in relation to the discovery, in the recently exhumed "treasure-house of Nineveh, of a rock-crystal lens, where it had for centuries lain entomed in the ruins of that once magnificient city." He established the statement by producing the lens itself, which was of a somewhat oval shape, 1 6-10ths inches in its greatest diameter, and of the character known as plano-convex, the plane side being one of the original faces of the crystal, while the convex side had the appearance of having been ground on a lapidary's wheel, instead of being shaped in the dish-shaped tool now used by opticians. It was in a more or less scratched or corroded condition, but could be recognized as a true optical lens, having a focal length of 4½ inches. This is a very remarkable discovery. It has always been believed that the ancients were entirely ignorant of lenses and their properties—to say nothing of the important optical instruments, the telescope, microscope, &c., which are formed of them. The little magnifying glass dug from the graves of buried Assyria will give rise to new ideas and conjectures regarding the arts and sciences of the ancient world.

Route to India Through America.—Capt. Syme read a paper on the comparative routes from England to the East Indies.

Having pointed out that a route towards the North by a line almost direct from England, connecting the Atlantic and Pacific Oceans, would be the shortest, the writer compared the relative advantages afforded in British America and the States where another line was proposed, and stated that the former possessed superior facilities. The plan which he suggested was composed of four distinct links of communication, each independent in itself, capable of separate execution, and opening up important sources of profit. Railways throughout Nova Scotia and New Brunswick, connecting the seaboard with the interior, were essential to the success of the plan. The report then entered into details of the project which contemplated the connection of Lake Superior, Winnipeg, the Rainy Lake, and the rivers and Lakes intervening, to the foot of the Rocky Mountains, and thence by creating permanent dams or reservoirs, to open the passes through these mountains, and regulate the descent of the waters to the Pacific. The paper entered into the calculations of the altitudes of the lakes, the highest water being estimated at about 1,400 feet above tide-water, but having referred to the ascent accomplished in the Welland Canal, and the necessity of a perfect geographical survey to ascertain the levels with precision, urged the practicability of the design, and gave elaborate details of the beauty and fertility of the country to show the important results which might be obtained from opening up the communication.

A paper was then read upon the possibility of making a ship canal through the Isthmus of Panama, and some conversation ensued upon the subject, Capt. Larcom observing that it was intimately in connection with the subject of a western packet station.

[Capt. Syme's plan will never be carried out, it is perfectly impracticable to keep up any internal system of navigation through the British North American provinces for at least four months in the year. Ths States is the country for a railroad to the Pacific.

Crossing the Red Sea by Moses.—The Rev. Dr. Hincks read a paper exhibiting great research and learning, on the site of certain ancient ruins. The reverend lecturer referred to several Assyrian inscriptions, copies of which he exhibited and explained. As he interpreted the characters, he understood them to record the receipt of tribute of silver, salt, copper and gypsum, and from the accompanying illustrations he traced the existence of such mines in a country north of Jamue, and also in the district of Asia Minor bordering on the Persian Gulf.

M. Pierre Tchihatchef, who had travelled in the country alluded to, being requested by the President to communicate any information which might throw light upon the inquiries of the Rev. Dr. Hincks, in reply to the lecturer, stated that rich mines of salt, copper, and lead, existed in many parts of Asia Minor and Armenia, which, if worked by Europeans, would be very productive, but were now explored upon bad principles. He described the position and circumstances connected with some of the places, and stated that the Persian Government had also sent out scientific gentlemen to search for iron in the country.

Dr. Hincks then entered into critical investigations of some of the names mentioned in Scripture, and gave it as his opinion that the Israelites crossed the Red Sea not at the place usually supposed, close to Suez, but lower down at the open sea, which would bear out more fully the Mosaic description. Some conversation ensued upon the subjects of the paper, and the thanks of the Section were given to Dr. Hincks.

Morphology of Plants.—Prof. McCosh, author of the celebrated work on "The Divine Government," read a paper on this subject.

The learned professor said, the view which he took of the morphology of the plant may be regarded as an extension, in the same direction, of the theory of Goethe. According to this theory, all the appendages of the axis of the plant, including leaves, bracts, sepals, petals, stamens, &c., are formed on a common plan, of which the leaf may be taken as the type. It had occurred to him (Dr. M'C.) that we may regard the branches of the plant, and the whole plant, as formed on the same plan. We may thus regard the plant as constructed on one model throughout. Speaking in this paper of reticulated leaved plants, he showed that there was a correspondence between the distribution of the branches along the axis and the distribution of the venation of the leaf. In some plants the lateral branches are disposed pretty equally along the axis, whereas in others, a number are gathered together at one point, and the plant becomes, in consequence, verticillate or whorled. Now, he found that, wherever the branches are whorled, the leaves of the plant, as in the rhododendron, or the veins of the individual leaf, as in the common sycamore and lady's-mantle, are also whorled. He showed further that, when the leaf has a peteole, the tree has its trunk unbranched to near the base (as in the case of the sycamore, apple, &c., and when the leaf has no peteole, the trunk is branched from the root, as in the common ornamental lawn shrubs—the bay, laurel, holly, box, &c. He showed further that the angle at which the branches go off from the axis is the same as that at which the side veins go off from the main veins.—His observations during the past summer had been chiefly directed to this point. He had measured, in all, about 210 species of plants, and found the angle of the branch and of the vein to correspond. He produced a tabulated statement of these 210 plants, and called the special attention of the section to several of them, as aldershort peteole, and short unbranched trunk, with an angle of 50 deg. both for vein and branch, &c. These observations seem to show that there is a morphological analogy between the venation and the stemage of the plant. Though he could not enter upon the subject at present, he believed that there was a similar unity running through linear leaved plants and monocotyledenous plants. In conclusion he remarked that these views, if substantiated, would give us correct views of the nature of the plant, and in particular show that there is a unity of design in the skeleton of the plant, similar to the unity of design which has been discovered in the skeleton of the animal frame. He believed that they would also make us better acquainted with what Humboldt would call the physiognomy of each species of plant, and furnish some additional marks to distinguish genera and species; and what was to him especially interesting, he was pursuaded they would enable the student of natural theology to make successful use of the plant to illustrate the order which reigns in the universe.

At its termination, a vote of thanks was unanimously voted to Prof. M'Cosh, for his interesting communication.

Scientific Balloon Ascent.—Mr. Welsh then communicated the results of the two balloon ascents which had taken place under the Kew Committee of the British Association. The objects to which attention had been particularly directed in these ascents were the temperature and humidity of the atmosphere at different heights. Mr. Welsh described the thermometers and hygrometers which had been employed during their aerial trips, and mentioned the contrivances necessary to enable the mercury of the thermometers to indicate with sufficient rapidity the temperature of the strata of air through which the balloon was carrying the voyagers in the experiment. For this purpose an apparatus like bellows was placed under the table whereon the instruments rested, and by means of a small weight, this was gradually expanded and caused a current of air to pass over the bulb. The two ascents took place on the 17th and the 26th of August. During the first ascent 100 observations were taken with dry and wet thermometers, and during the second, 180 observations were made. On the 17th the ascent occupied one hour, the highest altitude attained being 19,500 feet, and the balloon descended sixty miles from the Vauxhall Gardens, the ascent and descent having occupied an hour and a-half. The same wind was prevalent during the whole time. The first clouds occurred at 2,000 feet height, after they had been passed through no other clouds presented themselves until the balloon had obtained the height of 13,000 feet. At the highest elevation, clouds were still visible nearly on a level with the balloon, and the atmosphere was filled with fine crystals of snow. In the second ascent the balloon moved more gradually. The greatest height on that occasion was 19,000 feet, the balloon not being able to ascend higher, in consequence of Mr. Green having taken up rather heavier grappling irons than on the first ascent. Their course was, at first westward, and afterwards changed to north-west; afterwards, it again changed to south-west; and they landed near the Boxmoor station on the North-Western Railway. At a height of 3,000 feet there were some clouds, but after passing through them no more clouds were visible. The thermometer indicated, in the first ascent, a fall of one degree for every elevation of 308 feet; and, on the second occasion, a fall of one degree for every 345 feet of ascent. This ratio of fall to height was observed to be very nearly constant.

When Mr. Welsh had concluded his paper, several questions were put to him respecting his feelings during the ascent. He said he experienced no difficulty in breathing, but there was a slight pressure on the ears, and he felt a little pain in the temples.

One gentleman stated that he lived for a month at an elevation of upwards of 15,000 feet without inconvenience, only when using exertion he inspired more deeply.

Figure of the Earth.—Mr. Henry Hennesey then read a paper "On the Connection between Geological Theories and the Figures of the Earth." He said, from the time of Sir Isaac Newton, the theory in question had assumed three phases. After alluding shortly to the various changes which had taken place in it, and wherein the theory, as constructed by Sir Isaac Newton and Clairaut, had failed, and wherein certain portions had been confirmed by later investigations and experiments, he referred to the theory which had been proposed, at a later period, by Professor Playfair and Sir Charles Lyell, stating wherein it also was defective. He further referred to certain opinions of the latter gentleman, which were, at the first sight, certainly very plausible, but on a closer examination they, also would be found to be inconsistent with observation, and, indeed, with themselves.—The theory he alluded to attempted to account for geological phenomena by referring them to the action of water on the surface of the earth. This he considered inconsistent with the strict principles of science, and in the present state of physical knowledge untenable. Having thus stated the position in which all the theories relating to the geological phenomena were placed, it would, he thought, be at once admitted that the science was yet in a very imperfect state, and that much time and patient investigation would be required to bring it into anything like the position which it was so desirable it should occupy.

[To be Continued.]

Timber for Carriages---Proper Time to Cut it.

Being a subscriber to your truly valuable paper, I take the liberty of addressing you upon a subject of much importance to me, and perhaps to many others, to wit: the proper time for cutting carriage timber and the reasons therefor—hickory, ash, and white oak; there is great diversity of opinion here in regard to the proper season, among men of the best judgment; the worms here eat a great deal of our best timber before it is seasoned, even before it is barked. I have often noticed the superior quality of the timber in the Troy coaches; have you any correspondents in that quarter that can give the information and the philosophy of it, when it should be cut, that the worms will not spoil it, and at the same time contain the greatest amount of strength and durability? Your article in the last volume of the Scientific American, on Ship Timber, did not cover the ground, nor did it contain the information I am seeking. I yearly have much valuable timber lost by worms, and am now going to the fountain-head for the remedy. A large number of mechanics are interested in this information, and will be thankful, no doubt, to obtain all in their power. If you will please give it your most early attention you will greatly oblige many subscribers and friends. Very truly yours,

Richmond, Ind. R. L.

[We should suppose that the winter was the best season to cut timber; we are not, however, in possession of facts to give the required information. We know, however, that the hickory, in the eastern part of New York State is altogether of a superior quality to that which grows in the western part. Climate and soil, may account for all the difference in the timber spoken of by our correspondent. Some of our correspondents will no doubt be able to give us the desired information for the benefit of our readers, as they have usually been kindly disposed to do.

Sanatory Congress in Brussells.

On Sept. 20th, Medical Delegates from all parts of Europe met in the Hall of the Royal Academy of Brussels, in Belgium, to discuss questions relative to the dwellings of the working classes, drains, public baths, laundries, good water, ventilation, infant food, mural interments, bad food, criminality of the sexes, the regulation of workshops, and all that relates to general health. It is one of the most important conventions that has met since the world began. The discussions were to be conducted with closed doors, but the reports were to be read publicly. We hope that great good may result from this Congress, to the working classes of Europe. We have much need of such a Convention in New York city, for in some parts of it the denizens, most of them from foreign countries—are more thickly crowded than in London. With our warm summer weather, and the extreme cold of winter, overcrowding in houses is more fatal to health than in London.

Perils of Ballooning.

Mons. Petin made an ascent in his balloon from Bridgeport, Conn., and was carried out to sea. He came down in the water two miles from, shore, and had not a boat arrived soon afterwards, he would probably have been drowned,