rounding scenery, excited their admiration. On the evening of the following day, the Danish, Swedish, and Norwegian *savans* assembled in the apartments of Baron Berzelius, in the University, where the foreign visitors had the opportunity of inspecting the valuable collections of the Swedish Academy. On Wednesday, the scientific meetings (properly so called) commenced. They lasted six days. On Sunday there was a visit to Gripsholm, where there are many remarkable curiosities. On the Tuesday following, all the members of the meeting dined with His Majesty the King; and Wednesday and Thursday were spent in excursions to Skokloster and Upsala. Of the 319 scientific men assembled at these meetings, there were two from France, one from Griefswalde, two from St. Petersburgh, one from Helsingfors, and fourteen from Norway. No English visitors were mentioned."—At Mentz, preparations are making for the meeting of German Naturalists, which is to take place in September. The number of members is expected to reach 600; and Alexander von Humboldt and Oken have announced their intention of being present.

A correspondent writes to us from Antwerp as follows:—"It may interest some of your travelling and artistic friends to know that the Gallery here has lately been enriched by a fine collection of paintings of the early schools. Among them are said to be two by Giotto, two by Antonello de Messina, seven by Memmilinck or Hemmelinck, six by Quentin Matsys, three by John van Eyck, two by Hubert van Eyck, four by Lucas van Leyden, two by Mabuse, others by Holbein, Memmi, Margaret van Eyck, and Lucas Cranach. The collection was bequeathed by the late Von Erbare, burgomaster of the town. I would have sent you a more detailed account, but the catalogue of the new acquisitions is not yet printed. Of the majority of the pictures I may venture to speak in very high terms."

A French paper states that an ingenious mechanic, of Nuremberg, is constructing, by means of a subscription which has been raised to aid him, a steam-balloon of metal, calculated for the accommodation of any number of persons, from three to fifty, with provisions, for fifteen days,—and which he expects to guide as he pleases. Full particulars are given, with which, however, we do not think it necessary to trouble our readers; and skilful engineers who have examined the machine, are said to have no doubt of the possibility of completing this new mode of transport, which, hereafter, will render useless high-roads and railroads. When this mode of transit shall have reached perfection, and conveyance companies, abandoning the highways of the earth, shall conduct their speculations—as another and less material kind of speculators long *have—in nubibus*—the world may fairly think itself *in train* for recovering back some of those lost hopes, and frustrated wishes, and perished projects, of which, according to Boccaccio, the moon has been the great store-house for so many weary and baffled generations.

BRITISH INSTITUTION, PALL-MALL.

The Gallery, with the WORKS of the late SIR DAVID WILKIE, R.A., and a selection of PICTURES by ANCIENT MASTERS, is OPEN DAILY, from Ten in the Morning till Six in the Evening.—Admission, 1*s.*; Catalogue 1*s.* William BARNARD, Keeper.

DIORAMA, REGENT'S PARK.

The Two PICTURES, now exhibiting, represent THE VILLAGE OF ALAGNA, in Piedmont, destroyed by an Avalanche, painted by M. BOUTON; and THE SHRINE OF THE NATIVITY, at Bethlehem, painted by M. RENOUX, from a Sketch made on the spot by D. ROBERTS, R.A. in 1839. Both Pictures exhibit various effects of light and shade. Open from Ten till Five.

ROYAL POLYTECHNIC INSTITUTION.

Extended into Cavendish square.—Additions to the ENLARGED DISSOLVING VIEWS, one of which, the Interior of the CHAPEL of ST. HELENA in JERUSALEM, taken from the work of D. Roberts, R.A. (published by Mr. Moon) rivals the much-admired Picture of the Interior of the GREEK CHURCH.—Among other Novelties are fine Specimens of Fresco, in the Ancient and Modern styles, just executed by Frederick Sang, a German Artist of the first eminence.—Among the varied Lectures in Practical Science, the CALOTYPE PROCESS of Mr. Fox Talbot is given at Two o'clock Daily, in which Pictures are spontaneously developed before the Visitors.—The ORRERY, DIVING BELL, DIVER, &c. &c.—The COSMORAMIC VIEWS are shown in the Evenings only.—Conductor of the Band, Mr. Wallis.—Admission, 1*s.*

THE CHINESE COLLECTION, St. George's-place, Hyde Park-corner.—This splendid Collection, consisting of objects exclusively Chinese, surpassing in extent and grandeur any similar display in the known world, entirely filling the spacious saloon, 225 feet in length, by 50 feet in width, embracing upwards of fifty figures as large as life, all fac-similes, in groups in their native costumes, from the highest mandarin to the blind mendicant in his patched garment; also many thousand specimens, both in natural history and miscellaneous curiosities, illustrating the appearance, manners, and customs of more than three hundred million Chinese, respecting whom the nations of Europe have had scarcely any opportunity of judging, is NOW OPEN for PUBLIC INSPECTION, from Ten in the Morning till Ten at Night. Admission, 2*s.* 6*d.*; Children 1*s.*

AFFGHANISTAN.—NOW OPEN, PANORAMA, Leicester-square, a comprehensive and interesting VIEW OF CABUL, including every object of interest in the city, the Bala Hissar, the river Cabul, with a distant view of the Himalaya Mountains and the Pass of Khurd Cabul, where the British army was so treacherously destroyed. The whole illustrated by numerous groups of figures descriptive of the manners of the Affghanese. The Views of the Battle of Waterloo and of Jerusalem, remain open.

THE THAMES TUNNEL

is OPEN daily, (Sunday excepted,) from Nine in the Morning until Dark, and lighted with Gas. The Entrance is now on the Middlesex side of the River, close to the Tunnel Pier, Wapping. Admittance 1*s.* each.

By order of the Board of Directors,
Company's Office, J. CHARLIER,
2, Walbrook Buildings, City, Clerk of the Company.
1st August, 1842.

SCIENTIFIC AND LITERARY

MICROSCOPICAL SOCIETY.—*July* 20.—A paper was read by Mr. John Quekett, 'On the peculiar arrangement of the blood vessels in the air-bladder of fishes, and on the evidence they afford of the true function of that organ.' The author, after alluding to three principal modifications of the air-bladder in fishes generally, went on to describe that of the cod-fish, which he stated to be a thick muscular bag, without any opening externally, and provided on its ventral aspect with a highly vascular body, which has been supposed to perform the office of secreting the air contained in the bladder; the author described the minute arrangement of the vessels in this so called gland, the capillary system of which was composed of a great number of parallel vessels aggregated together in bundles, and forming loops at the free surface of the gland, and in the other part of the bladder the arrangement was also remarkable for the parallel manner in which the vessels were disposed; in this fish, three, but in others as many as six vessels ran parallel to each other. The fact of the air-bladder being subservient to the function of respiration was supported to a certain extent by the distribution found in the anterior compartment of the air-bladder of the eel; in this fish, the vascular net-work approached more nearly that of the cellular lungs of the Batrachia than any other class of vessels. The author concluded by stating, that the probable use of the gland in the closed air-bladders might be not that of secreting air, but of keeping in a pure state the air already there, as those fish provided with a gland generally live in deep water, and from having no outlet to the bladder are unable to change the contents, should they become impure. The paper was accompanied with injected specimens and with diagrams of the most important parts alluded to by the author.

MISCELLANEA

Contes Populaires.— Llandovery, July 26, 1842.

I take the liberty of addressing you in consequence of a notice of the 'Contes Populaires des Anciens Bretons,' which appeared in the *Athenæum* for July 16.

As a Welshman, and the printer of the Welsh text and English version of these Tales or Mabinogion, now publishing by Lady Charlotte Guest, I hope you will pardon the liberty I take in calling your attention to the following statement.—An authorized collection, with a translation, of the Welsh Mabinogion, has been regarded as a desideratum by all writers in romance, from Dr. Percy to Mr. Southey. The work has been often attempted, but has never been executed for want of proper encouragement. Some years ago Lady Charlotte Guest determined herself to collect and translate these Tales. She did so, and at the present time four numbers of her work are before the public, containing the Welsh text and an English translation of four of these Tales, with certain explanatory notes. Now M. de la Villemarqué's work is a translation of the three first of these same tales into French. It is not, however, as he states, a translation from the original Welsh, but it is a translation from the English version of Lady Charlotte Guest, altered a little by occasional reference to the Welsh text. Both versions profess to be literal, and therefore would, under any circumstances, resemble each other; but it is singular, that whenever a doubtful word occurs in the original, which is very old Welsh, the French translator follows the English version. Of the English edition, only four tales, out of a considerable number, have appeared; M. de la Villemarqué has confined his translation to the first three of these tales, the whole that were then published. To the English edition were appended certain notes, some of which were derived from sources strictly local, and the whole collected together from very various authorities. These notes are also appropriated in the French translation,—sometimes absolutely unchanged, sometimes a little altered, or taken to pieces and re-arranged, and often transposed from one story to another. Throughout the whole work there is not any acknowledgment of the appropriation, and except in a passage in the notes, the only mention of Lady Charlotte Guest is in an extremely flippant paragraph in the introduction. Any Welsh scholar will, on comparing the two translations with the text, detect the piracy; with respect to the notes, a knowledge of Welsh is unnecessary. Had M. de la Villemarqué, however, confined himself even to what I have pointed out alone, I should probably have passed the matter over in silence; but M. de la Villemarqué has committed himself by an assertion upon a fact concerning which the public are misinformed. In a note, tome I. p. 109, M. de la Villemarqué intimates that HE published the romance of the 'Chevalier au Lion,' "*Publié en Angleterre par l'auteur de cet Essai en* 1831," referring to a copy of that romance printed in Parts I. and II. of Lady Charlotte Guest's Mabinogion. The facts are as follows: Lady Charlotte Guest determined to render her work as complete as possible, by noticing with each Mabinogi its collateral romances, in French, German, and other languages, from the original MSS. With this view M. de la Villemarqué was employed to copy for publication the MS. of the 'Chevalier au Lion,' preserved in the Bibliothèque du Roi at Paris. For this transcript M. de la Villemarqué received a stipulated sum from Lady Charlotte Guest. His copy, however, was not always legible, and therefore, on the transcriber's happening to visit England a short time afterwards, I forwarded him some of the later proof sheets for correction, with his own copy; beyond this he had nothing whatever to do with the matter.

I remain, &c. WILLIAM REES.

The Fossil in the Norwich Museum.— London, Aug 6.

In reply to Mr. Charlesworth's note, in the *Athenæum* of July 23rd, which I have just seen, permit me to observe that evidence derived from examination of the jaws of the fossil in the Norwich Museum, referred by Mr. C. to some common Ruminant, is insufficient to establish that conclusion. Any one practically conversant with the fine gradations by which the smaller subgenera of Anoplotherian Pachyderms merge into the Ruminant order, would pause before he committed himself to a decided opinion upon maxillary or dental characters alone. Any one, not a practised comparative anatomist, might be warned of the danger of a mistake on this point by the following passages in the text-book of Palæontology, with which no one aspiring to the title of geologist would willingly be thought unacquainted. Cuvier, for example, says of the teeth of the *Anoplotherium gracile*, that "they present a structure which closely approximates them to their analogues in the Ruminants" (Ossemens Fossiles, 4to, t. iii. p. 61): of the molar teeth in the smaller Anoplotheres, constituting the subgenus *Dichobune*, Cuvier observes, that "they still more nearly approach the molars of the Ruminants," (loc. cit. p. 63): he describes the interval between the molars and incisors in this sub-genus, and of the latter teeth he affirms that they are entirely similar to those of Ruminants. Cuvier concludes his description of the teeth and jaws of these Ruminant-like Anoplotheria by the following emphatic statement—"Or, cette dentition, cette forme de branche montante, cette grandeur même, resemblent prodigieusement à ce qu'on observe dans les jeunes chevrotains,"—(loc. cit. p. 65.) No marvel, therefore, if a less experienced observer, confining his attention to the jaws of a fossil like those above alluded to, but which, according to his preconceived geological views, ought to be no Anoplothere, should satisfactorily establish such negative in his own mind. The opinion which I formed from inspection of teeth of the Bacton fossil is recorded in the excellent little work of its discoverer Mr. Green, 'Geology of Bacton,' 8vo. 1842. p. 13; and may not be the less true for being less decisive than that expressed by Mr. Charlesworth. Subsequent knowledge of the fossil in question by means of an apparently accurate drawing of the entire skeleton transmitted to me by Prof. Sedgwick, strengthened my suspicion of its Anoplotherian nature, since it exhibited two metacarpal bones in the fore-foot, and two metatarsals in the hind-foot. This important character is given with equal distinctness in the engraving which afterwards was published by Mr. Green, who, in reference to this point, expressly says, "of the metacarpal bones, there are two nearly perfect, three inches and a half long,"—(loc. cit. p. 17); and thence correctly infers that the fossil is more nearly allied to the Anoplotherium than to the Palæotherium. The two metatarsal bones of the hind-foot —called metacarpals in the text—are stated "to be nearly perfect,"[2]—(loc. cit. p. 18), as they appear to be in the engraving. It almost needs an apology for stating that all Ruminants have the metacarpals and metatarsals of each foot consolidated into a single cannon-bone; for with this bone, from ox, sheep, goat or deer, what schoolboy has not made his early experiments in gunnery?

The evidence which I have adduced, and deference to the opinion of the original discoverer and describer of the fossil in question, may be admitted as sufficient ground for an allusion to its Anoplotherian character, in a report having for its proper subject, a different division of the fossil Mammalia. But on no evidence short of personal inspection would I record an opinion of its affinities in that section of my report to which both Anoplotheres and Ruminants properly belong. I expressly stated at Manchester, in reply to Mr. Charlesworth's geological objections, that it was my intention to examine both the Bacton fossil and strata before reporting upon the British extinct Herbivora at the next Meeting of the Association, and the necessity for a visit to Norwich for such purpose, does not appear to be diminished by the opinion formed by Mr. Charlesworth during that in which he has anticipated me. I remain, &c.

RICHARD OWEN.

Paris Academy of Sciences.—June 18.—A communication was made on the late photographic discoveries by M. Möser (see *ante*, p. 687).—A paper, by M. Rameaux, of Strasburg, on the vital heat of plants, was next read. M. Rameaux has ascertained that the heat varies materially, not only according to the external temperature, but also in the different portions of the plants. This he attributes to the flow of the sap, which having received the vital heat from the direct action of the sun's rays, carries it as it flows; consequently, the portions immediately under the influence of the sap have a higher degree of temperature than those which are most distant.—

Digitized by Google
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN