valuable contribution by Dr. Gustav Fritsch, assistant in the anatomical museum at Berlin, on the comparative anatomy of the hearts of amphibia, illustrated by four plates and many drawings.

THE American Naturalist for March contains several interest-ing articles. The longest is by Mr. E. G. Squier, "On the Primeval Monuments of Peru compared with those in other parts of the world." He describes a class of stone structures in Peru belonging to what is regarded as the earliest monumental period, coincident in style and character with the cromlechs, dolmens, and "sun" or "Druidical" circles of Scandinavia, the British Islands, France, and Northern and Central Asia. Considerable aboriginal Peruvian tribes once lived in houses built on piles, or on floats in the shallow waters of the Andean lake. The remnants of such a tribe still live in this manner, and bear the name of Antis; they spoke and still speak a language differing equally from the Aymara and Quichua, called Puquina. Early chroniclers speak of them as extremely savage, and calling themselves, not men, but Uros. Whole towns of them, it is said, lived on floats of tortora or reeds, which they moved from place to place according to their convenience or necessities.—Prof. Joseph Leidy con-tributes remarks on some curious sponges; and Mr. W. W. Bailey a sketch of the Truckee and Humboldt valleys between the Sierra Nevada and the Rocky Mountains.

Silliman and Dana's American Journal of Science and Art for March contains the following articles:---Photometric Experi-ments, Part I., by O. N. Kood. Contributions to the Chemistry of Copper, Part I., by T. Sterry Hunt. Notice of a recent Land-slide on Mount Passaconaway, by G. H. Perkins. On the Silver Mines of Santa Eulalia, Mexico, by J. M. Kimball. Machinery and Processes of the Industrial Arts, and Apparatus of the Exact Sciences by F. A. P. Barnard. On Norite or Labradorite Rock, by T. Sterry Hunt. On the Cause of the colour of the water of Lake Leman, by A. A. Hayes. On the Potassio-Cobaltic Nitrite known as Fischer's Salt, by S. P. Sadtler. Notice of some Fossil Birds from the Cretaceous and Silliman and Dana's American Journal of Science and Art for Potassio-Cobaltic Nilitle known as Fischer's Sait, by S. F. Sadtler. Notice of some Fossil Birds from the Cretaceous and Tertiary formations of the United States, by O. C. Marsh. Descriptions of Shells, from the Gulf of California, by A. E. Verrill. Notice of Dr. Gould's Report on the Transatlantic Longitude. Meteors of November, 1869, by Prof. H. A. Newton.

SOCIETIES AND ACADEMIES LONDON

Ethnological Society, March 22.—Prof. Huxley, F.R.S., president, in the chair. Mr. R. S. Newall was announced as a new member. — A paper was read on current British My-thology and Oral Tradition, by Mr. J. F. Campbell (of Islay). After explaining the sources whence his popular tales of the Western Highlands had been derived, he referred to the traditional character of myths, and expressed an opinion that many genuine British traditions orally preserved in Celtic may pro-bably be old Aryan myths, mingled perhaps with pre-Aryan myths. Popular oral history must be founded on a real event, but minor details gradually drop out, while the most conspicuous incidents approach each other. The author showed how a legend sprouts from a fact which, being at first accurately told, passes into a tradition, while the dates and persons and locali-ties become uncertain. Poetry is a good vehicle for preserving thes become uncertain. Poetry is a good vehicle for preserving facts, and many current traditions carry with them a rhyme or a proverb to aid the memory. Hence, too, historic events are readily preserved in the ballad form. The president, Dr. Archi-bald Campbell, and Mr. Bouverie Pusey spoke upon this com-munication.—Dr. Campbell then read a note by the Rev. R. J. Mapleton on a Cist with Engraved Stones on the Poltallock Estate, Argyleshire.

Zoological Society, March 24.—Dr. E. Hamilton, V.P., in the chair. Mr. P. L. Sclater exhibited a coloured drawing in the chair. Mr. P. L. Sclater exhibited a coloured drawing received from Dr. Salvadori, of Turin, of a bird which Dr. Sal-vadori had proposed to describe as a new genus and species, but which was evidently referable to the singular pigeon recently named by Mr. Gould as *Otidiphaps nobilis*.—Mr. W. B. Teget-meier exhibited and made remarks on a living specimen of an Axolotl (*Siredon pisciformis*) which had undergone the change into the Salamandroid form recently described by Professor Dumeril, of Paris.—A third letter was read from Mr. W. H. Hudson, containing remarks on the ornithology of the vicinity of Buenos Ayres .- Mr. Osbert Salvin read a paper on the birds

of Veragua, based on large collections recently formed by Enrique Arce in that country, and in continuation of a former memoir on the same subject. The present communication contained an account of 214 species not given in the former list, and made altogether 434 species now known to occur in this limited district. Of these additional species several were stated to be new to science and of great interest.-Mr. P. L. Sclater read a new to science and or great interest.—int. r. L. Schater read a notice of two rare species of pheasants from Upper Assam recently added to the society's living collection. These were a Monaul (*Lophophorus sclateri*) and a Tragopan (*Ceriornis blythil*), both lately described as new by Dr. Jerdon. For these specimens, both lately described as new by Dr. Jerdon. For these specimens, both of which were in fine plumage and of very remarkable beauty, the society was indebted to the liberality of Major Montagu, of the Bengal Staff Corps.—Mr. P. L. Sclater read some further notes on the cuckoos of the genus *Coccyzus*, in continuation of a former paper on the same subject.—A com-munication was read from Professor J. V. Barboza du Bocage, containing a description of a new species of pelican from Angola, proposed to be called *P. sharpii*.—A communication was read from Dr. J. C. Cox, giving descriptions of eight new species of shells from Australia and the Solomon Islands.—A communication was read from Mr. Jonathan Couch, of Polperro, describing a new species of *Aplysia* or sea-hare, which had recently occurred on the coast of Cornwall, and which he proposed to call Λ . melanopus.

Chemical Society, March 17.—Prof. Williamson, F.R.S., president, in the chair. The following gentlemen were elected fellows: D. Brown, A. Muirhead, T. L. Patterson, D. Penny, S. T. Smith. The first paper read was on artificial alizarine, by W. H. Perkins, F.R.S. The lecturer commenced by sketching the history of the researches which had finally led to the artificial production of alizarine. This colouring matter was first obtained by Robiquet and Colin from madder root, and investigrated by Schunk, who assigned to it the formula C., H., O.: gated by Schunk, who assigned to it the formula C_{14} H_{10} O_4 ; it will subsequently be seen how very near this formula comes to the truth. Strecker and other chemists had reasons to write $C_{10}H_6O_3$ as the composition of alizarine, relating it to the compound $C_{10}^{}H_5ClO_3$ which Laurent had produced from naphtaline, and which Strecker regarded as chloralizarine. A few years since Graebe, when investigating a hydrocarbon known as quinone, $C_6H_4O_2$, found it to be a benzol in which two atoms of hydrogen were replaced by the group [O - O]." A deriva-tive of this body, the chloranil, C_6Cl_4 $[O_2]$ " yields hydric chlo-ranilate on successive treatment with caustic potash and hydric chloride. This reaction induced Graebe to view the chloride of Laurent's chloroxynaphtalic acid as the dichlorinated quinone of acapteding naphtaline, — $C_{10}H_8$ Naphtaline.

 $C_{10}H_4Cl_2[O_2]''$ Chloride of chloroxynaphtalic acid or Dichlornaphtoquinone.

and indeed when this naphtaline derivative is acted upon successively by potash and hydric chloride, it furnishes chloroxynaphtalic acid. After it had thus been shown that chloroxynaphtalic talic acid. After it had thus been shown that chloroxynaphtalic acid, Strecker's chloralizarine, was a quinone acid, Graebe and Liebermann thought it probable that alizarine might also be the quinone acid of some hydrocarbon, and it was now only neces-sary to know this hydrocarbon. On reducing a specimen of natural alizarine, a substance of the composition $C_{14}H_{10}$ was ob-tained; but this is the formula of anthracene of coal tar, and indeed the substance obtained by the reduction of alizarine pos-sessed all the properties of anthracene. This fact led Graebe sessed all the properties of anthracene. This fact led Graebe and Liebermann to assume alizarine to be the quinone acid of anth

$$\begin{array}{ccc} C_{14}H_{10} & C_{14}H_8 (O_2)'' & C_{14}H_6 \begin{cases} (O_2)'' \\ HO \\ HO \end{cases} \\ Anthracene \\ Or Anthraquinone. \\ Or Anthraquinone. \\ \end{array}$$

or Alizarine.

Having obtained anthracene from alizarine, it now remained to produce alizarine from anthracene. For this purpose it was first required to have the quinone of anthracene. Graebe and Liebermann found the desired substance in the oxygenated compound, $C_{14}H_8O_2$, which had been obtained by Laurent from anthracene. They heated this anthraquinone with bromine, acted upon the dibromanthraquinone thus gained with potash, and decomposed the potash salt thus obtained by hydric chloride. The product of these successive reactions was alizarine. But to turn this beautiful discovery to practical account, it was necessary to replace the bromine required in the process by some cheaper re-agent. A good substitute has been found in sulphuric acid.

When anthraquinone is heated with oil of vitriol, disulphoanthraquinonic acid is formed, and this decomposed by caustic potash yields the potassium salt of alizarine, from which hydric chloride liberates the alizarine. Artificial alizarine is entirely identical with the colouring matter obtained from the madder root. Both of these products crystallise in needles which are usually curved, especially when small. They dissolve in caustic alkalis, forming violet solutions of the same tint. When applied to mordanted fabrics, they produce exactly the same colours, bearing the treatment with soap equally, and resisting in the same reatment with soap equally, and resisting in the same degree the influence of light. Their alkaline solutions show identical absoption bands in the spectrum. Both yield pltalic acid when treated with hydric nitrate. As a sub-stitute for madder, artificial alizarine has been objected to, As a subon the ground that pure alizarine alone will not produce the madder colours, other colouring matter being required. But Schunk says that, after a long course of experiments, he has been led to the conclusion that the final result of dyeing with madder is simply the combination of alizarine with the mordants employed; and he recommends extraction from madder prints as the easiest method of preparing pure alizarine on a small scale. Artificial alizarine, as sent to the dyer and printer, is not exactly pure alizarine, and generally produces, with alumina mordants, a somewhat redder shade than madder. This is due to some impurities whose nature is, as yet, not known. A good deal has been said about the supply of anthracene. It must be remembered, however, that tar-distillers have as yet but little experience in separating this substance. Mr. Perkin's investigations on this matter have led him to believe that coal tar contains considerable quantities of this hydro-carbon. No doubt, the kind of coal used, as well as the temperature employed in the gas-works, influences the quality of the tar as a source of anthracene; but upon these points no definite information has yet been obtained. Mr. Perkin illustrated his interesting lecture by exhibiting samples of fabrics dyed and printed with artificial alizarine, and also by projecting the spectra of some alizarine solutions upon a screen. By producing alizarine from anthracene, Graebe and Liebermann have given the first instance of the artificial formation of a vegetable colouring matter. The way by which the beautiful discovery has been arrived at proves decisively, as the president pointed out, the high importance of studying the molecular arrangements of chemical compounds.

Entomological Society, March 21.-Mr. H. W. Bates, vice-president, in the chair. The first part of the "Transactions" for the present year was placed on the table. The attention of the meeting was devoted exclusively to *Lepidoptera*. Specimens were exhibited by Messrs. Howard, W. J. Vaughan, Bond, Frederick Smith, and Stainton. An interesting discussion on dimorphic forms of the larva and imago was participated in by Messrs. Albert Müller, A. G. Butler, Pascoe, J. Jenner Weir, Stainton, McLachlan, and the chairman. The paper read was by Mr. W. F. Kirby, "Notes on the butterflies described by Linnæus."

Brighton

Brighton and Sussex Natural History Society, March 10.—The president, Mr. T. H. Hennah, in the chair. A report from the committee was received, urging the advisability of forming a microscopical section. On the motion of Mr. Hazlewood, seconded by Mr. Wonfor, it was resolved that the report of the committee be received, entered on the minutes, and approved, the effect of which is to establish a microscopical section, and instead of one meeting on the second Thursday in each month, to have a second meeting for strictly microscopical objects on the fourth Thursday in each month.—A paper by Mr. Clifton Ward, F.G.S., "A sketch of the Geological History of England, so far as it is at present known," was read by Mr. Wonfor, hon. sec., in which, from the earliest dawn of the Cambrian period down to the present day, the changes produced by depression, deposition, elevation, denudation, &c., together with an account of the various types of animal and vegetable life during each period, were graphically described, and the amount of land above water in England at each period was represented by a series of fifteen charts.—It was announced that the Bryological Flora of the county of Sussex would soon be ready for distribution, the Society having determined to publish it at once, instead of waiting for the issue of the annual report in September.

Edinburgh

Royal Physical Society, February 23rd.—Mr. C. W. Peach, president, in the chair. The following papers were read :-

I. Note on the Klipspringer Antelope (Oreotragus saltatrix). By Mr. D. R. Kannemeyer. A skin of this antelope was exhibited, and its various peculiarities pointed out and described-the long, wiry, and close hair with which it was covered, and the remarkable structure of its strong limbs and feet. Major Harris, in his work on the wild animals of South Africa, described it as having jagged edges to its hoofs; there was really a long, narrow depression or oval-shaped hollow on each of the divisions of the hoof. These peculiarities were admirably suited to the habits of the animal, which lived on the tops of high mountains, and was remarkable for the speed, agility, and sureness of foot with which it could leap from rock to rock up and down the face of inaccessible precipices; and also for the great distance of its leaps, and the small surface of some projecting ledge or pinnacle of rock upon which it could suddenly arrest its course, even when in full career. Mr. Kannemeyer described the various enemies the animal had to defend itself from-the eagle, the panther, and man-and referred to the manner in which it was hunted by the colonists, and his own experience in stalking it.

2. On the Deposits of Clay in the Neighbourhood of Stirling. By Rev. James Brodie, A.M., Monimail.

3. Specimens of Polyzoa, &c., from the Faroe Islands, were exhibited and described by Mr. C. W. Peach, A. L. S., &c. The author stated that the specimens were from Stromoe, one of the Faroe Islands, and not gathered by himself, but were given to him by a person who had been there. They consisted of sixteen species of Polyzoa, four of Mollusca, three of Hydrozoa, two Sponges, three Annelide cases, with Foraminifera and Diatomacea. A portion of one of the shells shows the marks of rasping by limpets when feeding on the leathery disks of Hydrozoa. He remarked on this as a curious instance of vegetableeating animals being able to put up with such tough and hard fare when out of their native home, and thus accommodating themselves to their changed circumstances. He considered that the specimens were not got in deep water, nor far from land, as not a single really deep-sea form occurred amongst them. All of the species are to be got in our own seas, and with two exceptions (at present northern forms from Shetland and Wick, N.B.) have been collected by the author from Land's End to John o' Groats.

4. Dr. J. A. Smith exhibited a head of a red deer, the property of Mr. T. O. Horne, which was killed in the end of January near Kingussie, Inverness-shire. Instead of the usual well-developed brow and bez-antler which marked the red deer, this animal had on the right side two small and very short antlers springing close to the root of the horn, and on the left side a very small brow-antler, and then a large second antler springing from near the root of the horn, and running nearly parallel to the beam. It measured about a foot in length. The beam of the same horn measured one foot ten inches long, terminating in a couple of forked antlers above. The other horn was rather shorter, and also terminated in two antlers. The variety was probably due to some local injury sustained by the deer when the horns were beginning to sprout, the soft horn of the left side having apparently been split in two. Dr. Smith stated he was indebted to Mr. Muirhead, Queen Street, for recently sending him a specimen of the Ballan Wrasse, measuring 184in. in length, taken in the Firth of Forth, where it is by no means common; also, a very large specimen of the Lump-sucker or Hen-padle, Cyclopterus lumpus, The fish was full of roe; it measured 20 in. in length by a foot in depth, and weighed 10 b. 130z. He also noticed the very large male salmon taken on the 11th February. Mr. Anderson informed him it weighed a little over 561b., and measured 4ft. zin. in length by 2ft. 7in. in greatest girth. The salmon was taken along with several in greatest girth. The salmon was taken along wi others at Mr. Anderson's fishing station, near Stirling.

PARIS

Academy of Sciences, March 28.--M. Darroux communicated a paper on Equations, with partial derivations of the second order, and M. Tisseraud a note on a point in the differential calculus.--A memoir was read by M. J. Jamin, on the employment of the electric current in calorimetry, in which the author described a method of applying the heat produced by an electric current to the determination of the specific heat of various bodies.--M. Jamin also communicated, on his own behalf and that of M. Amaury, a memoir on the specific heat of water between zero $(32^{\circ} F.)$ and $100^{\circ} C. (212^{\circ} F.)$ The authors showed that the specific heat of water undergoes no particular alteration about 39.6° Fahr., and that from upwards it

increases with the temperature .- M. A. Trécul presented the sixth portion of his memoir on the position of the tracheæ in ferns, in which he described the ramification of the petioles in various plants of that group, including several species of Asplenium, Aspidium, and Polypodium. — A note was read Aspletnum, Asplatum, and Toppotium. At hole was had on the organs and phenomena of fecundation in the genus *Lemanea*, by M. Sirodot. The *Lemaneæ*, although among the highest of the fresh-water Algæ, were described by M. Rabenherst in 1868 as producing "spores germinating without fecundation." The author described what he regards as antheridia in two species (*L. catenata* and *L. fluviatilis*), and in-dicated the mode of fecundation as observed by him. -- M. Ducharter communicated an abstract of two Greek papers by M. Koressios, in which the author expressed the opinion that the disease now ravaging the vines in France attacks them from the roots, and recommended a certain mode of treatment.-M. Leymerie presented, through M. Elie de Beaumont, some observations on the conclusions lately put forward by M. Magnau, with regard to the lower cretaceous formation of the Pyrenees. He maintained that there is no evidence of the existence of the Albian stage in the Pyrenees, and also objects to the admission of the Muschelkalk as existing in the Zechstein in the departments of the Tarn and Aveyron. The same author addressed a note on the fragmentary state of the higher summits of the Pyrenees, in which he maintained that the broken state of the rocks forming these summits must be due to the effects of the force exerted during their elevation, and concluded therefrom that the summits of these and other mountains cannot have lost much of their original heights by subaerial action. M. Elie de Beaumont made some remarks on the permanence of artificial earthworks, as confirmatory of the author's views.-Papers on medical subjects were also read.

PHILADELPHIA

American Philosophical Society, February 4.—Pliny E. Chase presented tables of rainfall, and described them. The most interesting deductions were, as far as related to Philadelphia, that the spring and summer will be alike, and the autumn and winter alike. The tables are for 45 years up to date, from observations at the Pennsylvania Hospital. Dr. Brinton made observations on the zealous and long-continued studies of the language of the Choctaw Indians, made by the missionary Mr. Byington, who died a year ago. Dr. Brinton has a list of over 75 works, including the Bible, printed in Choctaw. Mr. Byington's Choctaw Grammar has been revised four times, and at his death he had progressed with his fifth revision. The MS. this work was in Dr. Brinton's hands, and was presented to the Society for publication.

February 18.—Prof. Cope read a paper intitled, "Fourth contribution to the Fauna of the Miocene period in the United States." He exhibited the periotic bones of a large whale from the miocene of North Carolina, which had been discovered by Prof. W. C. Kerr, State Geologist. The part of the skeleton found consisted of the left side of the cranium to the temporal fossa, mandible, and many vertebræ, ribs, &c. It was found 30 feet below the surface in the bank of a stream. It represented a type near the true *Balana*, but partaking of the characters of the *Balanaptera*. One peculiarity was the enormous thick-ening of the supraorbital process of the frontal, which was 17 inches deep. This individual was 17 inches deep. Vertebre of two other individuals were found in other places, and a complete vertebral column of the same extended across a stream 20 miles distant from Kerr's specimen. Vertebræ taken from the last, referred it to the same species. This specimen was 50 or 60 feet long, and extended across the stream in such a way as to serve as a foot-crossing when the water was very low. The species was named Mesoteras herrianus. Prof. Cope mentioned the discovery of the genus Sus for the first time in the United States, in the neighbourhood of Squankum, N.J. He said it agreed with the occurrence of the dugong noticed by himself and the rhinoceros by Marsh in giving an Asiatic character to that extinct Fauna. The hog he called *Sus vagrans*, and said it was as large as the common *S. scrofa*. He called atten-tion to the abundance of the species of the *Pythonomorpha* in the United States and Learnited two press month from Networks United States, and described two new species from New Jersey viz., Mosasaurus fulciatus and M. varthrus. The first with round curtra and an additional rib on the asquadratum, the second with depressed centra, and a quadrate bone more like that of *M. dekayi* than *M. depressus*. He said he knew 27 species of *Mosasauroids*. In the last work on the subject, only three species were described.

DIARY

- THURSDAY, APRIL 7. ROVAL SOCIETY, at 8.30.—On supra-annual Cycles of Temperature in the Earth's Surface Crust: Prof. Piazzi Smyth.—Researches in Animal Electricity : Dr. C. B. Radcliffe. Society of ANTIQUARIES, at 8.30. LINNEAN SOCIETY, at 8.30. LINNEAN SOCIETY, at 8.—On new species of Annelids, &c. : Dr. Baird On Algæ from the North-Atlantic Ocean : Dr. Dickie. ROVAL INSTITUTION, at 3.—Chemistry of Vegetable Products: Prof. Odling. CHEMICAL SOCIETY, at 8.—On the Analysis of Deep-sea Waiter : Dr. John Hunter.—On the refraction equivalents of the aromatic Hydro-carbons and their derivatives: Dr. J. H. Gladstone.—On an acid Feed-water from the Coal-fields of Shellaiton, N.S., and the results of its use : Prof. How. its use : Prof. How.

LONDON INSTITUTION, at 7.30 .- Geology: Dr. Cobbold.

FRIDAY, APRIL 8.

ROYAL INSTITUTION, at 8. – Pedigree of the Horse : Prof. Huxley. ROYAL ASTRONOMICAL SOCIETY, at 8. QUEKETT MICROSCOPICAL SOCIETY, at 8.

SATURDAY, APRIL 9.

ROYAL INSTITUTION, at 3.-The Sun : J. Norman Lockyer, F.R.S.

MONDAY, APRIL II

LONDON INSTITUTION, at 4.—Chemistry: Prof. Bloxam. ROYAL GEOGRAPHICAL SOCIETY, at 8.30. ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.

TUESDAY, APRIL 12

ETHNOLOGICAL SOCIETY, at 8.—On the Danish Elements in the population of Cleveland: Rev. J C. Atkinson.—On the Ancient Tribal System of Ireland: H. M. Westropp.—On the Brain in the Study of Ethnology: Dr. Donovan.

PHOTOGRAPHIC SOCIETY, at 8. INSTITUTION OF CIVIL ENGINEERS, at 8.—Dressing of Lead Ores.— Maintenance and Renewal of Railway Rolling Stock: Mr. R. Price Williams.

WEDNESDAY, APRIL 13.

WEDNESDAY, APRIL 13. ROYAL GEOLOGICAL SOCIETY, at 8.—On the Fossil Remains of Mammals found in China: Prof. Owen, F.R.S., F.G.S., &c. — Further Dis-covery of the Fossil Elephants of Malta: Dr. A. A. Cáridána. Com-municated by Dr. A. Leith Adams, F.G.S. – Brief preliminary Notes on a large Coal-measure Reptile from the Low Main Coal Shale: T. P. Barkas, F.G.S. ROYAL MICROSCOPICAL SOCIETY, at 8.

THURSDAY, APRIL 14.

MATHEMATICAL SOCIETY, at 8.—On the Mechanical Description of a Nodal Bicircular Quartic: Prof. Cayley.

BOOKS RECEIVED

ENGLISH.—Birds of Marlborough' E. F. Im Thurn (Marlborough, Per-kins; London, Simpkin and Marshall). FOREIGN.—Die Alterthümer unserer heidnischen Vorzeit, vols. i. and ii. (Mayence, V. V. Zabern).—Journal für Ornithologie; Jan. 1876.—Om Vege-tationsforboldene ved Sognefjorden : A. Blytt (Christiania; J. Dahl).— Lichenes Danize, eller Damararks Laver: J. G. Deichmann Branth og E. Rostruß, (Copenhagen, Gads). — Undersogelser over Christinätjordens Dybvandsfauna : G. O. Sars (Christiania, Dahl).—Zeitschrift für Patasiten-kunde, vol. II. pt. i. (Jena, Mauke).—Naturwissenshaftliche Reisen im tro-pischen Amerika; Dr. Wagner (Stuttgart, Cotta).—Archivio per la Zoologia l'Anatomia e la Fisiologia, Series II. vol. I. (Turin, Loescher).—Reisen im Archipel der Philippinen: Dr. Semper, Æolidien (Wiesbaden, Kreidel).— Through Williams and Norgate.

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ERRATA.-In No. 21, page 539, first column, line 21 from bottom: for "Perth," read "Perth."-In No. 22, page 557, first column, line 3 from bottom: for "Sir Sidney Smith," read "Mr. Sidney Smith."