were examined in detail, more and more points were discovered which could with difficulty be brought into harmony with that *prima facie* view. Inquirers who were not subject to the disturbing influence of Rouman patriotism came to the conclusion that the present Romance-speaking population of Roumania and Transylvania have migrated thither from the lands south of the Danube since the beginning of the twelfth century. In addition to the ordinary ethnologic evidence, the philological argument has been effectually urged by Paul Hunfalvy. Both in the middle ages and at the present time, a people is found in various parts of the Balkan peninsula whose speech so closely resembles that of the northern Roumans as to prove that they are dialects of one language, and must have been diffused from a common centre. — (*Academy*, May 19.) J. W. P. [133

NOTES AND NEWS.

It was known some months since how Mr. Henri Harrisse had made, as he claimed, a discovery that the Portuguese had as early as 1502 mapped out the eastern seaboard of the present United States from Florida to the neighborhood of 40° north latitude. A few weeks ago Mr. Harrisse laid a copy of the discovered map before the French institute with documentary proof of its date (1502). A more particular statement has reached us in a letter from the Rev. Edward E. Hale, written in Paris, where he had inspected Mr. Harrisse's copy of the map and document which were found in the archives of the Este family in Modena. We must await conclusive particulars, to be published by Mr. Harrisse, before determining if this last be one of the important contributions to the study of early American cartography, which this whilom New-York lawyer has made. Meanwhile it is not at all clear whether the new map is going to contribute any thing further than what we have already known from the old Portuguese chart, which Lelewel gives in his *Géographie du moyen âge*, pl. 43, with a conjectural date between 1501 and 1504. This gives a rude representation of Florida, with its easterly coast trending northerly, and coming abruptly to an end. Lying to the north-east, and in mid-ocean, is a bit of continental shore, indicating the Cortereal discoveries in its latinized name, 'Regalis domus,' with a large island adjacent called 'Terra laboratorum,' or Labrador. The earliest printed map of this region bears a strong resemblance to the Portuguese chart, and would seem to have been based on the same or similar information; and this is the famous Stobnicza map, which was published at Cracow not far from 1512. The 1511 Ptolemy has the Cortereal region, but omits Florida. From two maps in the 1513 Ptolemy a delineation very like the Portuguese chart can be made up; and after this its contours became for some years an established type frequently met with. Another Portuguese chart is well known to students in this field; and that is the one which has been reproduced by Stevens, Kunstmann, Kohl, and others, and is usually placed between 1514 and 1520. If it embodied current knowledge in Portugal, it was certainly not generally known there that the eastern coast united with the Cortereal region; for the ocean is represented as washing uninterruptedly between.

From what Mr. Hale writes, the newly found map would seem to be much the same in character as the 1513 printed Ptolemy maps, thus carrying back their delineation ten or eleven years earlier; and this, we have seen, takes us to the supposed date (1501–1504) of the Lelewel Portuguese chart, which is essentially like the 1513 maps, and seemingly like the Este map: but a sight of Harrisse's discovered chart, in due time to reach us, will give us something more than conjecture on which to base an estimate of its importance.

There is one discovery, however, which we are waiting for, and in time it may come; that is, the evidence, cartographical we hope, rather than documentary, that the Biscayan fisherman knew the Grand Banks and the adjacent coasts long before Columbus. It seems harder not to believe that this was the case than to believe it. The hardy fishermen of the Bay of Biscay had stretched their courses farther and farther to the north in pursuit of the stock-fish or cod, which was the staple food of Catholic Europe for more than a hundred days in the year. They had gone to Iceland, and, by easy gradation, to the Greenland seas; and we must remember that on this very Portuguese chart of 1501–1504, and in the Ptolemy, preceding the time of Columbus, Greenland was but a prolongation of north-western Europe. Accordingly, following their game, the fishermen could easily have cruised still farther along the Labrador coast, and to the neighborhood of Newfoundland, without in the least supposing they had found a new world, but rather a hitherto unvisited region of the old world. So, on their return, their sailor's yarns would raise no suspicion of a new quarter of the globe, such as Europe was startled at when Columbus returned from his purposed quest. It was not the fishermen's report, accordingly, that could have incited Cabot; but, when news reached England of the discovery of the Spaniards, it can easily be conceived how these sailor's yarns may have been interpreted in the belief that the land found by Columbus must, by the analogy of continents, have stretched to the north, and could be found by sailing west from England. Further, so far as Columbus' views were shared, that he had reached the coast of Asia, the reports of Marco Polo and the rest showed that the Asian coast must lie also in that very direction. Now, when Cabot reached the land, and found the natives calling the stock-fish or cod, *baccalaos*, where did they get the very term which Biscayan fishermen had applied to the same fish for centuries? This has always been a puzzle. It seems to us that it will yet be discovered that Cabot had only reached by a southern passage the region which the Biscayans had long been sailing to by the northern. The archives of Europe, we are confident, will yet reveal the proof. Only last summer the Rev. Mr. Hale, searching the archives at Madrid, found a sketch by Cortes

of the Gulf of California, made six years before the earliest that had previously been known; and it disclosed the extent of Cortes' own examination of the Pacific coast in advance of his captains. The archives of the old world have by no means yet yielded all that they may.

— The funeral of the late Mr. William Spottiswoode took place at noon July 5 in Westminster Abbey, and was attended by many distinguished men from the various scientific and other societies with which the deceased was connected. There was also a large attendance of the general public. The pall-bearers were Marquis of Salisbury, Oxford university; Lord Granville, London university; Sir W. Siemens, British association; Sir F. Leighton, Royal academy; Sir J. Lubbock, Linnaean society; Sir Bartle Frere, Royal Asiatic society; Sir W. Armstrong, Institute of civil engineers; Dr. Evans, Royal society; Chancellor of the exchequer, H. M. government; Duke of Northumberland, Royal institution; Master of the stationers' company, the company; Lord Aberdare, Royal geographical society; G. Busk, Esq., Royal astronomical society; Professor Flower, Zoölogical society; Mr. Shinn, Mr. Carey, Mr. Hunt, Mr. Millwood, Mr. White, Mr. Wilson, representing departments in the Queen's printing-office.

The *Athenaeum* says of Mr. Spottiswoode: "Mr. W. Spottiswoode's illness had from the first caused serious alarm; still it was hoped that he would triumph over typhoid-fever, though complicated by congestion of the lungs. His strength had, however, been shaken by the severe accident he met with some months ago, and there is little doubt that his indefatigable attention to duties of various sorts had overtasked even his vigorous constitution. He combined with the studies of a physicist and a mathematician the supervision of a great mercantile concern. To accomplish all this; to make elaborate and delicate experiments, contribute a succession of papers to the *Transactions* of the Royal society and *The Philosophical magazine;* to mix frequently in general society; to preside over the chief of our scientific bodies, and manage a large business, — was possible only to a man who would map out the work of every day, and never waste a minute of his time. And this was the case with Mr. Spottiswoode. His was eminently an organizing brain, gifted with great clearness, complete mastery of detail, unfailing punctuality, and power at once to seize the essence of any matter brought under his notice. Personally he was most kind and generous, eminently tolerant of differences of opinion, and courteous to all with whom he came in contact."

— On Thursday night, July 12, 1883, the newer of the buildings of the Indiana university was struck by lightning and thoroughly destroyed. The building was a four-story brick of Gothic design. Upon the first floor were the collections of geology, mineralogy, and archeology, and the chemical laboratory; on the second floor were the libraries and the physical laboratory; while the third contained the valuable zoölogical collections of the university, and the museum of comparative anatomy. The loss as reported is as follows: museum, $75,000; library, $36,000; laboratory, $10,000; building, $45,000; total, $166,000; upon which there was a total insurance of $27,454.54.

The entire Owen collection of 85,000 specimens of geology and mineralogy was destroyed. This collection contained many types of species described by David Dale Owen and others. The geological collection also contained many noted specimens from Europe and America, among the more celebrated of which were the large Würtemberg Ichthyosaurus, and a Megalonyx from Henderson, Ky. The latter has fortunately been described and figured by Professor Cope for the forthcoming report of the Indiana geological survey. A fine set of Ward's casts was also destroyed, but can readily be replaced.

Professor Van Nuys' chemical laboratory, containing a number of fine imported pieces of chemical apparatus; Professor Wylie's physical laboratory, including a number of the owner's ingenious mechanisms, and the entire ichthyological collections of Professors Jordan and Gilbert, — representing years of patient work, and probably the finest private collection of fishes in the United States, — were also destroyed, together with valuable collections belonging to the U. S. national museum, Yale college, Cornell university, and other institutions.

The Brookville society of natural history, of Brookville, Ind., has been the first to offer aid to the institution: they have placed their entire collection of duplicates at the service of the trustees, from which several thousand specimens will be received as soon as arrangements can be made to accommodate them. It is understood that the trustees will proceed at once to replace the building which was destroyed; and they should erect a substantial fire-proof building in which to keep what valuable material they may hereafter acquire.

— The circular of the local committee of the American association announces reduced rates on very many railways and at the hotels of Minneapolis. The latter, however, are crowded at this season; and members are recommended to resort to the suburban hotels on Lake Minnetonka and Lake Calhoun, about twelve miles from the city, to and from many of which the railways will carry members free, the time being about half an hour. Many members will be entertained by the citizens of Minneapolis; and a sub-committee will endeavor to find entertainment for all who will notify its chairman, Hon. A. C. Rand, early, of their intention to be present.

The usual favors will be granted by the telegraph companies. Badges, a daily lunch, and low-priced carriages will be furnished, together with a descriptive and illustrated guide to the city of Minneapolis, now in preparation. Express packages containing apparatus, specimens, maps, books, drawings, or other articles designed for use in the meetings, will be forwarded by the American express company, and delivered free of charge at the University of Minnesota. Such parcels should be addressed in care of Prof. J. A. Dodge, to whom, also, all correspondence relating to the same should be sent. After Aug. 12,

letters may be addressed to members at Minneapolis, in care of the association, and they will be delivered from the office of the local committee at the university.

An excursion will be made to Minnetonka, and return, on Saturday afternoon, when a lawn picnic will be served at the Lake Park Hotel. If a party of a hundred and fifty or more desire to make an excursion to Winnipeg, and return, at one-half of regular fare, the St. Paul, Minneapolis, and Manitoba railway will send a special train for their accommodation. No definite arrangements have yet been made for other excursions.

The retiring address of President J. W. Dawson will be given at the Westminster church, on Nicollet avenue, on Wednesday evening. After the address a reception will be held by the local committee at the Nicollet House.

The meeting will probably be one of special interest to glacial geologists, numerous papers concerning the terminal moraine and other glacial phenomena being expected.

— The annual meeting of the Society for the promotion of agricultural science will be held in Minneapolis on Aug. 13 and 14, in the Agricultural college building, of the State university.

— A special public meeting of the Cambridge entomological club will be held in Minneapolis, at the chapel of the university, at two P.M. on Tuesday, Aug. 14, to which all persons interested in entomology are invited.

— The annual meeting of the American forestry congress will be held at St. Paul, Minn., commencing on Wednesday, Aug. 8, 1883. The local committee has in charge the arrangement of railroad facilities, etc., announcement of which will be sent to all members in due time, and to all those who express their desire to attend the meeting. Papers to be read at the meeting, or abstracts of the same, should be sent in to the corresponding secretary two weeks before meeting, according to the by-laws of the congress.

— A geographical and ethnological exhibition will be held in Nancy from Aug. 20 to Sept. 20.

— The French association for the advancement of sciences meet at Rouen, Aug. 16–23.

— The sixth congress of the French geographical societies will meet under the presidency of M. de Lesseps at Douai on the 26th of August, and remain five days in session. A geographical exposition will form a feature of the meeting. The seventh congress will meet at Rouen in 1884, and the eighth at Oran in 1885.

— The seventh congress of the Russian scientific association will be held in Odessa from Aug. 30 to Sept. 9.

— The sixth annual meeting of the American society of microscopists will be held in Chicago, beginning Tuesday, Aug. 7, 1883, and continuing four days. Ample preparations are making by the committee of the State microscopical society of Illinois, and the Chicago academy of sciences; and the attendance of members is expected to be larger than ever before. First-class hotel accommodations at reduced special rates have been secured, and choice arrangements made for the comfort and convenience of the meeting. Titles of papers may be sent to the secretary, Prof. D. S. Kellicott, Ph.D., 119 14th St., Buffalo, N.Y. Full provision will be made for illustration, by projection apparatus, of any article when the authors may so desire. A special hour will be allotted each day to the exhibition of objects and apparatus referred to or described in communications read before the society; an evening will also be set apart for the presentation of methods of work, including staining, section-cutting, mounting, microphotography, etc. A general microscopical *soirée* will be held on another evening, and members are requested to bring instruments and slides with them. The exhibition of instruments and accessories by makers and dealers promises to be unusually fine.

The officers of the society are Albert McCalla of Fairfield, Io., president; E. H. Griffith of Fairport, N.Y., and George C. Taylor of Thibodeaux, La., vice-presidents; D. S. Kellicott of Buffalo, N.Y., secretary; and George E. Fell of Buffalo, N.Y., treasurer.

— The Société académique of Brest held an exhibition of matters relating to geography, June 3–17. An especial object was to bring to notice the rich ethnological material which has accumulated in this city during many years. The halls devoted to Japan, China, Cochin-China, and West Africa, presented much of interest.

— In the *Philosophical transactions* for 1817 (p. 325), Sir William Herschel says, that, "beside the 683 star-gauges published in the *Philosophical transactions* for 1785 (p. 221), above 400 more have been taken in various parts of the heavens."

These four hundred unpublished gauges have lately been extracted from the original observing-books preserved at the Herschel family residence at Collingwood, through the kindness of Sir William Herschel, the present baronet, and of his brother, Major John Herschel; and the manuscript has been presented to Professor Holden, director of the Washburn observatory.

The original records are in the handwriting of Miss Caroline Herschel, and by her faithful care every detail necessary to their accurate deduction is preserved. It will be observed that only two-thirds of the star-gauges of Herschel have heretofore been known. The new acquisition will be welcomed by those interested in this class of observations. They are a new gift from an inexhaustible mine.

— The bureau of education has just published a circular of information, containing the results of an inquiry into the effects of co-educating the sexes in three hundred and forty cities and large towns of the Union. Of these, three hundred and twenty-one practise co-education throughout the public-school course, seventeen co-educate for part of the course, and two separate the sexes entirely. A careful analysis of the reasons adduced for co-education enables the editor to formulate them as follows: co-education of the sexes is preferred where practised, because it is, 1°, *natural*, following the usual struc-

ture of the family and of society; 2°, *customary*, or in harmony with the habits and sentiments of every-day life and law; 3°, *impartial*, affording to both sexes equal opportunities for culture; 4°, *economical*, using school-funds to the best advantage; 5°, *convenient* both to superintendent and teachers in assigning, grading, instruction, and discipline; and, 6°, *beneficial* to the minds, morals, habits, and development of the pupils. The pamphlet concludes by observing that "both the general instruction of girls, and the common employment of women as public-school teachers, depend, to a very great degree, on the prevalence of co-education, and that a general discontinuance of it would entail either much increased expense for additional buildings and teachers, or a withdrawal of educational privileges from the future women and mothers of the nation."

— Mr. Charles B. Dyer, a well-known collector of Cincinnati fossils, died at his home on Wednesday, July 11, after a painful illness of over three months' duration. He was for many years engaged in amassing one of the finest collections of local paleontology in the country, which now reposes in the Agassiz museum in Cambridge. His rarest fossils were collected by himself, and his industry in the pursuit of new and fine specimens was untiring. In connection with Mr. S. A. Miller, Mr. Dyer issued a few years ago, at his own expense, a pamphlet with two plates, containing descriptions of new forms from his collection, entitled 'Contributions to paleontology.' Thirty years ago Mr. Dyer retired from business with a moderate fortune, and devoted all his time to collecting. He was an eccentric man, with strong feelings, but a fast friend and a pleasant companion. He was in the seventy-eighth year of his age, and had lived in Cincinnati for over fifty-five years. His name is attached to one of the commonest crinoids of the Cincinnati rocks, Glyptocrinus Dyeri, and to several very rare and beautiful forms discovered by him.

— The Imperial geographical society of St. Petersburg has awarded its great gold medal to H. W. Abich for his researches into the geology of the Caucasus. The Lütké medal was received by W. K. Döllen of the Pulkova observatory for improvements in astronomical instruments; Vitkoffski, Barsoff, and Krasnoperoff have received medals for ethnographic and statistical works; Oshanin, for travels in Turkestan, etc. Silver medals were awarded to Brunoff for meteorological researches, and to Lessar, Schultz, Gladisheff, Kiseleff, Rodionoff, and Slovtsoff for surveys and journeys, chiefly on the Asiatic frontier of Russia.

— The observatory at Moscow was among the establishments of the northern hemisphere which cooperated with Mr. David Gill, Her majesty's astronomer at Cape Town, in securing observations of the small planet Victoria, at its late opposition, for a new determination of the solar parallax. The ninth volume (livraison i.) of the *Annales* of this institution contains the results of these observations, together with several papers by its director, Dr. Bredichin, relating to comets and allied subjects.

RECENT BOOKS AND PAMPHLETS.

*** Continuations and brief papers extracted from serial literature without repagination are not included in this list. Exceptions are made for annual reports of American institutions, newly established periodicals, and memoirs of considerable extent.*

Hospitalier, E. Formulaire pratique de l'électricitien. année i. 1883. Paris, 1883. 280 p., illustr. 12°.

Huxley, T. H. Il gambero. Introduzione allo studio della zoologia. Milano, 1883. 352 p. 8°.

Johnston's Botanical atlas; with explanatory text. 2 vols. (i. Phanerogams; ii. Cryptogams). London, 1883. 52 pl. 4°.

Jónás, J. Studien und vorschläge auf dem gebiete des lebensversicherungs-geschäftes. Berlin, 1883. 83 p. 8°.

Kloeber, C. Der pilzsammler. Genaue beschreibung der in Deutschland und den angrenzenden ländern wachsenden speiseschwämme nebst zubereitung für die küche, sowie kulturanweisung der champignonzucht. Quedlinburg, 1883. illustr. 8°.

Kobelt, W. Iconographie der schalentragenden europäischen meeresconchylien. heft i. Kassel, *Fischer*, 1883. 16 p., 4 lith. 4°.

Krok, O. B., och **S. Almqvist**. Svensk flora för skolor. i. Phanerogamer. Stockholm, 1883 26+198 p. 8°.

Le Monnier, G. Dix leçons de botanique. Paris, 1883. 124 fig. 12°.

Lepsius, R. Das Mainzer becken, geologischer beschreibung. Darmst, 1883. illustr. 4°.

Luhmann, E. Die fabrikation der dachpappe und der anstrichmasse für pappdächer in verbindung mit der theerdestillation nebst anfertigung aller arten von pappbedachungen und asphaltirungen. Wien, 1883. 256 p., illustr. 8°.

Magaud, L. Les oiseaux de la France. Première monographie: corvidés. Histoire naturelle et particulière des passereaux déodactyles cultrirostres observés en France. Paris, 1883. 4°.

Medical era. vol. i., no. 1. Chicago, *Gross & Delbridge*, July, 1883. 8+32 p. 8°. *m.*

Mina-Palumbo, F. Monografia botanica ed agraria sulla cultivazione dei pistacchi in Sicilia. Palermo, *Lauriel*, 1883. 272 p., 28 pl. 8°.

Nazzani, I. Trattato d'idraulica pratica. vol. i. Milano, *Hoepli*, 1883. 646 p. 8°.

Patouillard, N. Tabulae analyticae Fungorum. Descriptions et analyses microscopiques des champignons nouveaux, rares ou critiques. cent. i. Poligny, 1883. illustr. 8°.

Pattison, M. M. Chemists. London, 1883. (Heroes of science.) illustr. roy. 8°.

Petermann, A. Recherches de chimie et de physiologie appliquées à l'agriculture. Analyses de matières fertilisantes et alimentaires. 1872–82. Bruxelles, 1883. 448 p. 8°.

Peters, P. Darstellung elliptischer functionen durch flächen. Königsberg, 1883. 32 p. 4°.

Pucci, E. Fondamenti di geodosia. vol. i. Milano, *Hoepli*, 1883. 403 p. 8°.

Rovelli, C. La teoria delle funzione potenziale di Green applicata allo studio dei fenomeni della gravitazione universale. Como, *Franchi*, 1883. 96 p. 8°.

Saint-Lager. Des origines des sciences naturelles. Paris, 1883. 134 p. 8°.

Sauvage, H. E. La grande pêche (poissons). Paris, 1883. illustr. 8°.

Slack, J. H. Practical trout-culture. New York, 1883. illustr. 8°.

Strasser, H. Zur kenntniss der funktionellen anpassung der quergestreiften muskeln. Stuttgart, 1883. 115 p. 8°.

Targioni-Tozzetti, A. Ortotteri agrari. Firenze, 1882. illustr. 8°.

Toula, F. Geologische karte von Oesterreich-Ungarn nebst Bosnien und Herzegovina. Wien, 1882. f°.

Vallot, J. Études sur la flore du Sénégal. fasc. i. Paris, 1883. 80 p., pl. 8°. [To contain 6-8 fasc.]

Vélain, Ch. Cours élémentaire de géologie stratigraphique. Paris, 1883. 316 p., illustr. 12°.

—— Excursion géologique dans le Morvan. Paris, 1883. 129 p., illustr. 4°.

Violle, J. Cours de physique. tome i. Physique moléculaire, partie 1. Paris, 1883. 511 p., 259 fig. 8°.

Wernicke, A. Grundzüge der elementar-mechanik. Braunschweig, 1883. 448 p., illustr. 8°.

Zoltz, A. de. Principii della eguaglianza di poliedri e di poligoni sferici. Milano, *Brida*, 1883. 48 p. 8°.