practical affairs with what knowledge they have or make research itself subservient to money-getting by selling crude inventions, by self-advertisement, or by cooperation with financiers. We have no hierarchy of students on a living wage basis; and as a consequence we are very short of real teachers even for practical purposes. For the real teacher must be an advanced student, not a mere parrot reciting other men's work.—The London *Times*.

FALLS OF METEORS.

Dr. Edward S. Holden, of the U. S. Military Academy, has kindly sent us the following letters for publication:

A large meteor appeared at Leoti, Kans., between the hours of nine and ten the night of September 2. The sky was clear and the air cool. The meteor, or fire ball, appeared in the west at an angle of about forty-five degrees, crossed the heavens with a hissing sound and was lost in the east, about ten degrees above the sky line. It seemed large as a full moon, with ragged edges. For a moment everything was flooded with light. I think a full minute passed before thundering began in the east and following the path of the meteor across the heavens slowly died out in the west. I have seen meteors in this country at different times, but none as large or followed by thunder.

October 9, 1905. M. A. Marston.

A meteor is said to have fallen some years ago about fifty miles from here beside White Whale Lake. It is near an Indian reservation, and the Indians profess to have seen it fall, and hold it in a good deal of reverence. I have not yet seen the object, * * * I drove out to see the stone this summer, but found that it meant a long row up the lake in a very indifferent boat, so I put the excursion off till the ice comes, when it will be possible to drive right to the spot. Are there any observations that I could make upon this meteor, if it proves to be such, that you would care to have? If so, kindly let me know.

Chas. H. Huestis.

Edmonton, Alberta,
October 5, 1905.

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AND HARVARD UNIVERSITY.

We learn from the Boston *Transcript* that Harvard University has now formally abandoned all plans for a merger with the Massachusetts Institute of Technology. This action was taken at a meeting of the president and fellows on October 30, when the following letter was presented:

My dear President Eliot:

I am directed by the Corporation of the Institute of Technology to communicate to you the fact that, in view of the recent decision of the Supreme Court of the State in the case of John Wilson et al. *vs.* The Massachusetts Institute of Technology, the Corporation of the Institute finds it impossible to proceed with the plan of cooperation which was considered at its meeting of June 9.

In communicating this fact the corporation desires at the same time to express its appreciation of the fairness and courtesy of the Corporation of Harvard University in our common effort to solve a difficult question.

I am,

Very sincerely yours,

[Signed] Henry S. Pritchett,
October 11, 1905. *President.*

Thereupon it was voted that the committee of conference appointed by the Harvard board on May 16, 1904, at the instance of the corporation of the Massachusetts Institute of Technology, be discharged, and that the president be requested to express to the members of the two committees of conference the high appreciation by the president and fellows of the foresight, good judgment and public spirit of which the committees' project for a close affiliation between the institute and the university gives evidence, and the regret of the president and fellows that the project has been brought to naught by the recent decision of the supreme court, which makes it impossible for the institute to place itself beside the university.

SCIENTIFIC NOTES AND NEWS.

The Bolyai prize of the Hungarian Academy of Sciences, of which some account was recently given here, has been awarded to M. Poincaré.

THE eightieth birthday of Dr. F. A. March, professor of English and comparative philology at Lafayette College, was celebrated on October 25, when Professor W. B. Owen made an address of congratulation. The trustees of the college have offered to retire Professor March with full salary, but he prefers to continue his usual duties.

DR. ARTHUR STÄHLER, assistant in the chemical laboratory of the University of Berlin, has been sent by the minister of education to Harvard University to pursue studies in inorganic chemistry under Professor T. W. Richards.

MR. HENRY S. DRINKER, recently installed as president of Lehigh University, was given the degree of Doctor of Laws by Lafayette College on October 25.

DR. EDWARD MARTIN, director of the Department of Public Health and Charities of the city of Philadelphia, has resigned this position.

DR. WILHELM WUNSTORF has been appointed district geologist in the Berlin Geological Bureau.

MAJOR LACHLAN FORBES has been appointed secretary of the Royal Scottish Geographical Society in succession to Major Lindsay Forbes.

THE special board for biology and geology has nominated Mr. F. A. Potts, B.A., of Trinity Hall, Cambridge University, to use the university table at Naples for six months.

DR. THEODOR PREUSS, of the Berlin Museum of Ethnology, has been sent on a scientific mission to Mexico.

MR. EINAR MIKKELSEN, a Dane, proposes to make an expedition to the Arctic regions, the objective being that part of the Polar Ocean which lies immediately to the west of the Parry Archipelago, north of Canada.

MR. S. P. JONES, formerly assistant state geologist of Georgia, has been pursuing special studies in petrography for the past six months, first at the University of Wisconsin and during the summer at Cambridge, Massachusetts, working on material loaned him by the geological department of Harvard University.

MR. LOUIS M. PRINDLE, of the U. S. Geological Survey, has returned from the Alaskan field, where during the past summer he has been making a geologic reconnaissance between the International Boundary and Fairbanks.

DR. CHAS. H. SHAW, professor of botany at the Medico-Chirurgical College of Philadelphia, has returned recently from a second expedition to the Selkirk Mountains, in British Columbia. The region of the big bend of the Columbia River, a large tract of country between the 51st and 52d degrees of N. Lat. and embracing the Selkirks has hitherto been almost unknown botanically and very imperfectly so geographically. Dr. Shaw's expedition, under the auspices of the Medico-Chirurgical College and including a number of students of botany and zoology mainly from the vicinity of Philadelphia, this year, as last, visited the big-bend region and collected some 25,000 sheets of specimens representing its flora, besides gathering data by photographs and weather readings bearing on the ecological features of this little-known mountain range.

AT a meeting of the Pharmaceutical Society of Great Britain on November 7 Sir George Watt delivered a lecture on shellac, and Mr. J. C. Umney, F.C.S., contributed a paper on the chemistry and analysis of shellac.

A SERIES of addresses on educational problems will be given under the auspices of the Department of Education of the City of New York, in Cooper Union on Wednesday evenings from November 8 to December 27. Among those who will lecture are Dr. Andrew S. Draper, New York state commissioner of education; Dr. W. H. Maxwell, superintendent of schools; Professor L. H. Bailey, director of the Cornell College of Agriculture; President Carroll D. Wright, of Clark College; Dr. L. H. Gulick, director of physical training in the city schools; Mr. Frank A. Vanderlip, the banker, and Dr. James H. Canfield, librarian of Columbia University.

UNDER the auspices of the Ethical Society of St. Louis, W J McGee, director of the St. Louis Public Museum, is giving a course of weekly lectures on anthropology to a class of twenty-five or thirty. The course presents a systematic outline of human development,

with special attention to the view that progress in culture is in accordance with definite natural laws. The class meets on Thursdays at four P.M. in the Museum of Fine Arts, Nineteenth and Locust streets; the first meeting occurred November 2. The details were arranged by Mrs. D. W. Knefler, secretary of the class.

A MONUMENT in honor of Z. Gramme, known for his discoveries in electricity, will be erected at Liège, near which city he was born.

MAJOR GENERAL SIR CHARLES WILSON, K.C.B., F.R.S., director-general of the British Ordnance Survey and of military education, known for his work on topography, died on October 25 at the age of sixty-nine years.

THE death, in his eighty-first year, is announced from Alsfeld, in Oberhessen, of Karl Müller, author of works on natural history, written conjointly with his brother.

DR. KOSTLING, vice-director of the Meteorological Bureau at Vienna, died on October 7.

THE inaugural meeting of the British Science Guild formed in April, 1904, was held on October 30, at the Mansion House. The objects of the guild are (1) to bring together as members of the guild all those throughout the empire interested in science and scientific method, in order, by joint action, to convince the people, by means of publications and meetings, of the necessity of applying the methods of science to all branches of human endeavor, and thus to further the progress and increase the welfare of the empire; (2) to bring before the government the scientific aspects of all matters affecting the national welfare; (3) to promote and extend the application of scientific principles to industrial and general purposes; (4) to promote scientific education by encouraging the support of universities and other institutions where the bounds of science are extended, or where new applications of science are devised.

A CONFERENCE of delegates from the corresponding societies affiliated with the British Association was held in the rooms of the Linnean Society, London, on October 30 and 31, under the presidency of Dr. A. Smith Woodward, F.R.S.

A CITIZEN of Denmark has given sufficient money to provide for a biological station in Greenland, and it is expected that the Danish government will defray current expenses.

BRITISH journals state that the Heriot trust governors have decided to establish a laboratory at the Heriot Watt College, Edinburgh, for the study of bacteriology in its relation to various industries. The laboratory has been fitted with the best appliances, and the services of Dr. Westergaard have been retained to supervise it. The laboratory was formally opened by a lecture by Professor Hansen, on October 18.

THE Physico-Chemical Club of Boston and Cambridge held the first meeting this autumn on November 1 in the Harvard Union. Professor Wilhelm Ostwald was present and was elected an honorary member. Professor T. W. Richards and Professor A. A. Noyes were reelected, respectively, president and vice-president, and Dr. G. S. Forbes was elected secretary and treasurer. Sixty-three members were present, who listened to a paper by Professor Noyes on the 'Hydrolysis of Ammonium Acetate and the Ionization of Water at 100°, 156° and 218°,' as well as one by Professor Richards on compressibility in relation to atomic volume and structure. Each paper was based upon entirely new data, and was followed by lively discussion.

ACCORDING to a telegram received by the Japanese consul-general in Copenhagen, the Japanese government will shortly send a special expert to Copenhagen and to the Baltic and North Sea waters in order to study the methods of carrying out international sea exploration.

THE removal of the Heidelberg University library, containing more than 700,000 volumes, into a new sandstone library building has just been completed. Each separate book was freed from dust by a cleaner operated by an electric motor, of the form used in house and carpet cleaning, the back and edges of each book being subjected to the powerful suction of the cleaner. The library requires about 21 miles of shelf room.

THE geological department of the British Museum has recently purchased and placed on exhibition a fine specimen of *Ichthyosaurus acutirostris* Owen, from the Upper Lias of Holzmaden, Wurtemberg. The specimen is remarkable as containing between its ribs the skeletons of no less than six fœtal young, as in the cases described by E. Fraas. It is supposed that these skeletons have been displaced from their natural position by crushing during the process of fossilization. On the other hand, it may be suggested that they in their struggles forced a way into the body cavity, and were thus, perhaps, the cause of their mother's death. Beddard has lately described such an instance in the recent skink, *Chalcides lineatus* (*Proc. Zool. Soc.*, London, 1904, II., p. 145); he, however, admits the possibility that extra-oviducal fœtation may be normal in some reptiles, and 'may be in part responsible for some of the legends concerning the swallowing of their young by various reptiles for protection's sake.'

THE experimental locomotive of Purdue University, Schenectady No. 2, which has recently served in an important study designed to determine the value of very high steam pressures, is to be sent to the Schenectady works of the American Locomotive Company early in November for the purpose of being fitted with a Cole superheater. It is expected that the engine will be returned with its new equipment early in January. During the absence of Schenectady No. 2 from the testing plant, a New York Central Atlantic type engine is to be installed upon the plant for use under the direction of the Master Mechanics' committee on front-ends. It is the purpose of this committee to repeat upon an engine of large size the experiments made under the patronage of the American Engineer upon Schenectady No. 2, for the purpose of determining the constants in such equations as may be necessary to the logical design of all portions of the front-end mechanism. The Master Mechanics' committee having the matter in charge consists of H. H. Vaughan, superintendent motive power, Canadian Pacific Railway, chairman; Mr. F. H. Clark, general superintendent motive power, C. B. & Q. R. R.; Mr. Robert Quayle, superintendent motive power and machinery, C. & N. W. Railway; Mr. A. W. Gibbs, general superintendent motive power, Pennsylvania Railroad; Mr. W. F. M. Goss, Purdue University; Mr. G. M. Basford, American Locomotive Company.

THE first course of lectures for the season 1905–1906 to members of the American Museum of Natural History will be given according to the following program. The lectures will be delivered on Thursday evenings at 8:15 o'clock, by members of the scientific staff of the museum and will be fully illustrated by stereopticon:

November 9, Mr. Frank M. Chapman, 'The Bird Life of Florida.'

November 16, Mr. Louis P. Gratacap, 'Newfoundland: Its Scenery and People.'

November 23, Dr. Edmund Otis Hovey, 'Northern Mexico: Its Deserts, Plateaux and Canyons.'

December 7, Professor Henry Fairfield Osborn, 'The Museum's Rocky Mountain Explorations of 1905.'

December 14, Professor Albert S. Bickmore, 'The Philippines—Manila.'

December 21, Professor Albert S. Bickmore, 'The Philippines—Luzon.'

The Army and Navy Journal calls attention to the fact that among the most valuable results of the American military occupation of the Philippines is the large and growing collection of maps of the islands prepared by officers of the army. These maps show in detail the roads, trails, rivers and mountain passes in nearly every part of the archipelago, and had they been in existence when the army began its campaign of pacification in the territory the difficulties of that undertaking would have been greatly lessened. During the domination of the Spanish little or nothing was done in that line, and they never had an accurate map, even of the larger islands. Nearly all the maps, such as they were, were prepared by the friars, whose work was performed without regard for its usefulness in military operations. But when the United States Army entered the territory it immediately instituted a comprehensive system of map making, with

special reference to military needs, and the result is a collection which, while it would be invaluable in the event of another military campaign, will also be highly useful in the peaceful development of the islands through the medium of modern roads, bridges and other improvements. These maps will probably do as much to promote the agricultural and industrial development of the Philippines as any single act of the civil government, and for them the authorities are indebted entirely to the patient, painstaking, courageous labors of the army.

The council of the Royal Meteorological Society has now appointed a lecturer who is prepared to deliver lectures on meteorological subjects, *e. g.*, How to observe the Weather; Weather Forecasting; Climate; Rainfall; Thunderstorms; Meteorology in relation to Agriculture, Health, etc. The lectures will be illustrated by lantern slides from the large collection in the possession of the society. The council is willing to arrange for exhibiting at the gatherings of local scientific societies, institutions or schools, a collection of photographs, diagrams and charts illustrating meteorological phenomena and various patterns of instruments used for meteorological observations.

UNIVERSITY AND EDUCATIONAL NEWS.

Mr. Andrew Carnegie recently offered $20,000 to Hope College, Holland, Mich., for a gymnasium, on condition that a like sum be raised by the institution. The condition has been met and the gymnasium is now being erected.

Mr. Ralph Vorhees, of Clinton, N. J., has given Huron College, a Presbyterian institution in South Dakota, a hundred thousand dollars, subject to a life annuity of five per cent.

The University of Melbourne will celebrate its jubilee in April, 1906.

Dr. Austin Scott has resigned the presidency of Rutgers College, but retains the chair of history and political science.

The following appointments have been made in the faculties of the George Washington University:

Faculty of Graduate Studies.

General Henry L. Abbott, U.S.A., retired, member of the Board of Consulting Engineers of the Panama Canal, professor of hydraulic engineering.

Edward B. Rosa, Ph.D. (Johns Hopkins), professor of physics.

Brigadier-General George M. Sternberg, U.S.A., retired, former surgeon-general of the War Department, professor of preventive medicine.

Faculty of Columbian College.

Edwin A. Hill, A.B., M.A. (Yale), Ph.D. (Columbian), assistant professor of chemistry.

Thomas M. Price, B.S. (Md. Agricultural), Ph.D. (Columbian), assistant professor of chemistry.

Timothy W. Stanton, B.S., M.S. (Colorado), Ph.D. (Columbian), assistant professor of paleontology.

Philander Betts, B.S., M.S. (Rutgers), E.E. (Columbian), assistant professor of electrical engineering.

Paul N. Peck, A.B., A.M. (George Washington), instructor in mathematics.

Department of Medicine.

Arthur M. Tasker, B.A. (Wesleyan), assistant in chemistry.

Ernest W. Brown, Ph.D. (Yale), assistant in chemistry.

Dr. Alexander McKenzie, lecturer in the University of Birmingham, has been appointed head of the chemical department at the Birkbeck College in succession to Dr. John E. Mackenzie, who has become principal of the Technical Institute, Bombay.

Appointments at King's College, London, have been made as follows: Mr. E. P. Harrison, Ph.D., and Mr. H. S. Allen, M.A., assistant lecturers in physics; Mr. C. F. Russell, B.A., assistant lecturer in mathematics; Mr. L. Hinkel, assistant demonstrator in chemistry; Mr. W. Woodland, demonstrator in zoology; Mr. O. S. Sinnatt, B.Sc., and Mr. R. Wolfenden, B.Sc., demonstrators in engineering; Mr. J. E. S. Frazer, F.R.C.S., demonstrator in anatomy.

Dr. G. N. Woldrich has retired from the chair of geology in the Bohemian University at Prague, and is succeeded by Dr. Pocta.