rope admit that it was far anterior to the occupation of the country by the Romans, and think that the mines of Abbaretz-Nozay were abandoned by the Gauls about the date of the Roman invasion.

In a pamphlet entitled *Gold Growth* (Cincinnati, The Robert Clarke Co.), Mr. John Jacob Wagner asks: "Does nature transmute silver into gold?" "If it does, can we derive and utilize such hints, from nature's operation, as will enable us to attain artificial transmutation?" The former question he answers in the affirmative in the pamphlet before us; to the latter he promises a reply 'in due time.' The basis of the author's argument is that gold in nature is always found associated with silver, and the ratio of gold to silver is not uniform. If silver never occurs without some gold, it follows that the gold has grown from the silver, and the varying proportions found in different mines are due to the length of time the growth has been going on. Hence in the older rocks the proportion of gold to silver is greater then in the later rocks. Pure gold can be separated from silver alloy; but the 'fine silver' resulting invariably contains gold. The inference is that the silver is 'growing' into gold. This pamphlet belongs to a class of writings by no means rare, the efforts of laymen to clear up facts and theories which are far from clear to specialists who have devoted their lives to them. Granted that the premises of the writer are true, his deductions would have no weight to a chemist. He finds not merely silver and gold occurring together, but many other elements always associated with each other. If gold 'grows' from silver, why not potassium from sodium, or bromin from chlorin, etc.? The only difficulty with the theory is that at present there is absolutely no evidence of facts to support it, and the wisest chemists hesitate to philosophize on the problem of the genesis of the elements. It may be questioned if books, such as that before us, have any value; certainly they have not from a scientific standpoint.

J. L. H.

SCIENTIFIC NOTES AND NEWS.

THE DEDICATION OF THE YERKES ASTRONOMICAL OBSERVATORY.

The University of Chicago has made very complete arrangements for exercises in connection with the dedication of the Yerkes Astronomical Observatory, to continue throughout the present week. The arrangements are as follows:

October 18, Monday.

2:30 p. m. Fourth Annual Meeting of the Board of Editors of the *Astrophysical Journal.*

4:30 p. m. Opening session of conferences. Informal talks on recent investigations, including:

Assistant Professor F. L. O. Wadsworth (Astrophysicist, Yerkes Observatory), on the application of Diffraction Phenomena to Astronomical and Astrophysical Measurements.

Dr. G. F. Hull (Professor of Physics, Colby University), on Electric Radiation.

7:30 p. m. Assistant Professor Wadsworth will demonstrate with the 40-inch Yerkes telescope the application of interference methods to astronomical measurements.

Professor Burnham will show selected double stars with the 40-inch telescope.

October 19, Tuesday.

9:00 a. m. Second session of conferences.

Dr. Henry Crew (Professor of Physics, Northwestern University), on the Source of the Characteristic Spectrum of the Metallic Arc.

Dr. Henri Deslandres (Astrophysicist, Paris Observatory), on a subject to be announced later.

Dr. W. J. Humphreys (University of Virginia), on the effect of Pressure on Wave-length.

Professor James E. Keeler (Director of the Allegheny Observatory), on the Spectra of Stars of Secchi's Third Type.

Professor H. C. Lord (Director of the Emerson McMillin Observatory, Ohio State University), on Researches in Stellar Spectography.

Professor Carl Runge (Director of the Spectroscopic Laboratory, Technische Hochschule, Hannover), on Oxygen in the Sun.

Professor Ormond Stone (Director of the Leander McCormick Observatory, University of Virginia), on the Great Nebula of Orion.

2:15 p. m. Address on the Yerkes Observatory by Professor George E. Hale, Director.

3:00 p. m. Professor Hale and Mr. Ellerman will show various solar phenomena with the 40-inch Yerkes telescope, including the chromosphere and prominences, the reversal of the H and K lines in prominences and faculæ, the duplication of the D_3 line, etc.

Experimental demonstrations will be given in the Observatory laboratories as follows:

Experiments with the rotating arc, Professor Crew.

Analysis of electric radiation by means of the interferometer, Professor Hull.

The effect of pressure on wave-length, Dr. Humphreys.

Measurements of wave-lengths in the infra-red spectrum, Assistant Professor Wadsworth.

Demonstrations in the Optical Shop, and in the Instrument Shop.

7:30 p. m. Professor Barnard will show with the 40-inch Yerkes telescope:

N. G. C. 224 (Andromeda Nebula).
N. G. C. 598.
N. G. C. 1976 (Orion Nebula).
N. G. C. 2245 (cometary nebula).
N. G. C. 2392 (planetary nebula).
N. G C. 6543 (planetary nebula).
N. G. C. 6618 (Swan nebula).
N. G. C. 6720 (annular nebula).
N. G. C. 7009 ('Saturn' nebula).
N. G. C. 7078 (globular cluster).
R. Leporis (Hind's crimson star).
Selected variable stars.

The 12-inch refractor and 24-inch reflector will be used for miscellaneous observations.

OCTOBER 20, WEDNESDAY.

Professor George C. Comstock (Director of the Washburn Observatory, University of Wisconsin), on Determination of Stellar Parallax, and on Investigations of the Lunar Atmosphere.

Professor C. L. Doolittle (Director of the Flower Observatoy, University of Pennsylvania), on the Latitude Work of the Flower Observatory.

Father Hedrick (Astronomer, Georgetown College Observatory), on the Photochronograph.

Professor H. S. Pritchett (Director of the Observatory, Washington University,) on Personal Equation in Longitude Determination.

Dr. Charles L. Poor (Associate Professor of Astronomy, Johns Hopkins University), on a New Form of Mirror for Reflecting Telescopes.

Professor J. K. Rees (Director of the Columbia University Observatory), on the Variation of Latitude and the Reduction of the Rutherfurd Photographs.

Assistant Professor F. L. O. Wadsworth, on a Photographic Meridian Circle.

Professor E. E. Barnard (Astronomer, Yerkes Observatory), on Astronomical Photography.

Father Hagen (Director of the Georgetown College Observatory), on An Atlas of Variable Stars.

Professor G. W. Hough (Director of the Dearborn Observatory, Northwestern University), on Jovian Phenomena.

Professor G. W. Myers (Director of the Observatory, University of Illinois), on the System of β Lyræ.

Professor Simon Newcomb, on a subject to be announced later.

Professor E. C. Pickering (Director of the Harvard College Observatory), on the Work of the Harvard College Observatory.

7:30 p. m. Professor Hale will show the spectra of the following objects with the 40-inch Yerkes telescope:

N. G. C. 1976 (Orion Nebula).
N. G. C. 7027.
Alcyone.
DM. 30° 3639.
α Lyræ.
α Tauri.
α Orionis.

OCTOBER 21, THURSDAY.

8:30 a. m. Departure from Chicago, of the special train.

9:30 a. m. Final session of conferences.

Dr. Kurt Laves (the University of Chicago), on the Teaching of Theoretical Astronomy in America, and on Jacobi's Investigations in Theoretical Astronomy.

11:30 a. m. Formal Presentation and Acceptance of the Yerkes Observatory.

1. Address: 'The Importance of Astrophysical Research and the Relation of Astrophysics to other Physical Sciences.' Professor James E. Keeler, Sc.D., Director of the Allegheny Observatory.
2. Presentation. Mr. Charles T. Yerkes.
3. Acceptance on behalf of the Trustees. The President of the Board of Trustees.
4. Acceptance on behalf of the University. The President of the University.
5. Prayer. Charles Kendall Adams, President of the University of Wisconsin.

1:00 p. m. Luncheon.

2:00 to 3:30 p. m. Inspection of the Yerkes Observatory.

October 22, Friday.

10:00 a. m. Inspection of the Ryerson Physical Laboratory and other buildings of the University of Chicago.

In the Ryerson Laboratory Head Professor Michelson and Associate Professor Stratton will demonstrate the effect of a magnetic field on radiation, and exhibit an interferential comparer and a new form of harmonic analyzer.

1:00 p. m. Luncheon given by the President of the University.

3:00 p. m. Address: 'Aspects of Modern Astronomy.' Professor Simon Newcomb, LL.D.

7:30 p. m. Banquet.

THE LABORATORIES OF THE BRITISH GOVERNMENT.

The Revenue Laboratories of the British government for chemical examination and analysis have just been housed in a new building erected adjacent to King's College Hospital. From the London *Times* we take the following facts regarding the building and its equipment: It occupies a site of about 7,900 square feet, and its various rooms, 38 in number and capable of accommodating about 100 workers, are distributed over three floors and a basement. The building externally is befittingly simple in character, and, with the exception of the entrance, which faces Clement's Inn, is altogether devoid of any attempt at ornamental treatment. On the ground floor are situated the office of the Principal Chemist, the Deputy Principal, a small reference library, the research laboratory, the crown contracts laboratories, and the laboratory for the examination of food and drugs sent by magistrates under the Adulteration Act of 1875. Samples of imported butter taken by customs officers at the port of entry at the instance of the Board of Agriculture are also examined in this laboratory, as are samples of fertilizers and feeding stuffs referred in accordance with the Act of 1893.

The first floor is wholly reserved for the examination of alcoholic products and manufactured tobacco. The alcohol laboratory, arranged for 32 workers, is a lofty, well-lighted room, with conveniently-disposed work-tables fitted with various contrivances for the rapid and accurate examination and analysis of brewing materials, worts, beers, wines, tinctures, medicated wines, compounds, etc. In the same laboratory is conducted the examination of the wood naphtha required for the methylation of alcohol. Round the room are placed the balances needed for the estimation of density, etc., and under each window is a table for the clerical work of the analysts, special arrangements being made for the keeping and preservation of the official registers. Immediately adjoining are the polariscope room and an artificially cooled chamber, capable of holding some thousands of samples pending examination. Close to the entrance of the main laboratory are the offices of the superintending analysts, each fitted with a working bench and with presses for the custody of microscopes and special apparatus. Next to these are the tobacco rooms. In one of these the incineration work, required for the determination of sand and inorganic matter, is conducted in muffle-furnaces fired by gas. The estimation of moisture in manufactured tobacco, instituted in 1887, are also conducted in this room, the samples being heated in a series of jacketed steam ovens, arranged to work continuously night and day. The main tobacco laboratory is fitted with appliances for the examination of manufactured and the so-called 'offal' tobacco for determination of drawback and for the detection of fraudulent or improper admixtures.

On the second floor are placed a number of special rooms, a museum of specimens of adulterated foods and other products, a small classroom for the instruction of supervisors, a typewriting office, and a room for the preparation of micro and other photographs.

In the basement are situated rooms for the standardization of the instruments employed in the revenue service, and laboratories for the chemical and bacteriological examination of waters sent by the Prison Department of the Home Office, the Board of Trade, Office of Works, and other public departments. There is also here provision for operations requiring a high temperature, as in furnaces, oil and air baths, etc.; a small mechanical laboratory, rooms for the storage of chemicals, apparatus and stationery, and of samples required to be

preserved either for purposes of reference or pending prosecutions.

AMERICAN MATHEMATICAL SOCIETY.

BEGINNING with the present academic year, the regular meeting of the American Mathematical Society will, as we have already noted, be held on the last Saturday of October, February and April, instead of monthly from October to May as heretofore. The annual meeting for the election of officers takes place in the last week in December, falling this year on Wednesday, December 29th. Each meeting will now extend through two sessions, beginning at 10:30 a. m. and 2.30 p. m. As a result of the arrangement, it is believed that the individual meetings will become of greater prominence and interest, and that the members of the Society will be afforded a better opportunity for mutual acquaintance and scientific discussion. The first meeting of the Society under the new program will be held on Saturday, October 30th, in Room 301 of the Physics Building of Columbia University, New York City. The following is a list of the papers thus far entered for presentation:

MORNING SESSION.

1. Dr. G. W. HILL: 'Intermediary orbits in the lunar theory.'

2. Mr. P. R. HEYL: 'Notes on the theory of light on the hypothesis of a fourth dimension.'

3. Dr. E. O. LOVETT: 'Note on the fundamental theorems of Lie's transformation groups.'

4. Professor CHARLOTTE ANGAS SCOTT:

5. Professor E. W. BROWN: 'Note on the steering of an eight-oared boat.'

AFTERNOON SESSION.

6. Professor R. S. WOODWARD: 'On the cubic equation defining the Laplacian envelope of the earth's atmosphere.'

7. ———— 'On the integration of a system of simultaneous linear differential equations.'

8. Professor MANSFIELD MERRIMAN: 'The probability of hit on a target when the probable error in aim is known; with a comparison of the probabilities of hit by the methods of independent and parallel fire from mortar batteries.'

9. Professor A. S. CHESSIN: 'Note on hyperelliptic integrals.'

DURING the past year a section of the Society has been organized with headquarters at Chicago. The meetings of the section, like the summer meeting of the Society, usually extend through two days, and are held in the Christmas holidays and in April.

THE October number of the *Bulletin* (Vol. 7, No. 1) has just been issued, and contains, beside the usual 'Notes' and 'List of New Publications,' the report by the Secretary of the Summer Meeting at Toronto, articles on 'Regular Triple System,' by Professor E. H. Moore; on 'Collimations in a Plain with Invariant Quadric or Cubic Curves,' by Professor H. S. White; on 'A generating Function for the Number of Permutations with an Assigned Number of Sequences,' by Professor Frank Morley; and a review of Koenig's 'La geometrie réglée et ses applications,' by Dr. Virgil Snyder.

GENERAL.

THE fifteenth annual Congress of the American Ornothologists' Union will meet at the American Museum of Natural History, New York, on the evening of November 8th, and will continue in session on the three following days.

THE directors of the Philadelphia museums propose holding in October of next year an exposition of the raw and manufactured products of the United States. It will be in conjunction with the next meeting of the advisory board of the museum, which will be attended by many foreign delegates.

MEMORIAL exercises in honor of the late General Francis A. Walker were held by the Massachusetts Institute of Technology, in Boston, on October 14th. There were more than 3,000 people present in Music Hall, including many delegates from educational and scientific institutions. Addresses were made by Governor Walcott and Senator Hoar.

PROFESSOR J. M. SCHAEBERLE has been appointed acting director of Lick Observatory in the place of director Edward S. Holden, whose resignation is noted elsewhere in this issue. It is said that either Professor Schaeberle or Professor Davidson will probably succeed Professor Holden in the directorship.

LORD KELVIN sailed for England on Saturday, after a week filled with engagements, including

a reception by the American Philosophical Society, a reception at Princeton and a luncheon at Columbia University.

Dr. John Guiteras, of the University of Pennsylvania and the U. S. Marine Hospital Service, has returned to Philadelphia, after having made a thorough study of the yellow fever in the South, and will present an exhaustive report of his inspection to Surgeon-General Wyman.

Mr. W. G. Macmillan, lately lecturer in Mason College, Birminghom, has been appointed Secretary of the British Institution of Electrical Engineers.

Professor Gundelfinger, of the Botanical Institute of Darmstadt, has been awarded the gold medal for merit of the Munich Academy of Sciences.

We note with much regret the death of Charles E. Colby, since 1889 professor of organic chemistry in Columbia University. He was born in Lawrence, Mass., in 1855, and graduated from the School of Mines of Columbia College in 1877. Professor Colby's work was hampered by deafness and ill-health, but he was a chemist of unusual ability, and his death is a serious loss to Columbia University.

Dr R. P. H. Haidenhain, since 1859 professor of physiology at Breslau, died on October 13th, aged sixty-three years. He is the author of important contributions to experimental physiology, his work on secretion being perhaps the most valuable.

We also regret to record the deaths of Dr. Edmund Drechsel, professor of medical chemistry in the University of Berne, aged fifty-six years, and of Dr. Stoll, formerly director of the Pomological Institute at Proskau, aged eighty-four years.

A dispatch to the daily papers stated that during an ascent of Mount Ararat, Armenia, by members of the recent Geological Congress, Dr. Stoeber, a professor of medicine, was frozen to death.

Kites sent up on October 15th, from the Blue Hill Observatory, surpassed the record of September 19th, recorded by the director, Dr. Rotch, in a recent issue of the Journal, by more than 1,500 feet. They carried the meteorological instruments to a height of 10,900 feet above the hill top, or 11,500 feet above sea level. The kites were sent up at 3:50 o'clock in the afternoon and reached the highest point by six o'clock. At that altitude the temperature was 43°, while it was 73° at the ground.

During the course of a lecture at Montevideo, on October 15th, Dr. Sanarelli stated that the serum he has obtained from the animals with which he has been experimenting is effective against yellow fever, and that it will very probably cure yellow fever in human beings.

It is reported that the Cavendish Sporting Expedition through Africa arrived safely at Kikuiu on August 5th, and started for Zanzibar on August 15th. The expedition has crossed from the Gulf of Aden by somewhat the same route as that of Dr. Dondaldson Smith, and is said to have made valuable geographical explorations.

It is doubtless known to all our readers, from the daily press, that the British Foreign Office has agreed to a scientific conference on the seal fisheries by delegates from the United States, Great Britain and Canada. Professor d'Arcy Thompson will, it is reported, leave at once for the United States.

A Berlin despatch to the New York *Sun* states that the International Leprosy Conference, which has been in session for a week, expects to conclude its deliberations on Saturday. Comparatively little has been added to the knowledge of the disease, except what was contained in a statement by Dr. Babes, of Bucharest, that leprosy bacilli were found in great abundance in mucus, which, accordingly, was a dangerous channel of infection. Another debate resulted in a concurrence of opinion that leprosy was not specifically a skin but a general disease. There was much discussion as to the treatment of the disease, especially of experiments with serum. All the experiments had been without result, except in one case, where the outcome is in doubt. The conference appointed a commission to prepare plans for the formation of an international leprosy society. Professor Virchow is the president of the commission, and Dr. Dyer, of New Orleans, is a member.

THE Audubon Monument Association of New Orleans is collecting money for a monument of Audubon to be placed in the park named after him in New Orleans. For this purpose the Association offers to sell a memorial volume giving an account of Audubon's life, prepared by Mrs. M. F. Bradford.

A CHEMICAL society has been formed at Brown University. It held its first meeting on October 5th, when an address was given by Professor John Howard Appleton on 'Recent Discoveries in Chemistry.'

FOUNDERS' Day at Lafayette College was celebrated on October 20th, the exercises being a tribute to Professor T. C. Porter, who this year retires from active service after sixty years devoted to the natural sciences, which he has taught at Lafayette College for thirty years. According to the program addresses were to have been made by Professor Nathaniel L. Britton, of Columbia University, the director of the New York Botanic Garden, on 'The Progress of Systematic Botany in North America,' by Professor William B. Scott, professor of geology in Princeton University, on 'Thirty Years of Geological Progress in North America,' and by Dr. John M. Crawford, of the class of 1871, lately Consul-General to St. Petersburg, on 'Dr. Porter as Pioneer in Finnish Literature.'

THE Commissioners of Works and Public Buildings, London, offer to distribute this autumn, among the working classes and poor inhabitants of London, the surplus bedding-out plants in Hyde and Regent's Parks and in the pleasure gardens of Hampton Court.

The Auk states that a unique and exceedingly appropriate memorial to the late Henry Davis Minot consists of a park of some fifty acres in extent, recently transferred by his four brothers, William, Charles S., Robert and Lawrence Minot, in accordance with the wishes of their father, the late William Minot, to the trustees of public reservations in Massachusetts, to be maintained as a wild park, 'for the use of the public forever.' This park, to be known as Mount Anne Park, consists of a tract of about fifty acres of beautiful woodland near the village of West Gloucester, Mass. It includes Mount Anne, or Thompson's Mountain, the highest point on the North Shore, some 225 feet above the sea—a pine-clad, granite summit in the midst of a forest wilderness. The park is otherwise charmingly diversified, being a spot of exceptional natural beauty.

THE Lowell textile school has opened its second year with an attendance of 230 students, twice as many as last year. Classes this year will be formed by Professor W. W. Crosby, of the Massachusetts Institute of Technology, Professor Fenwick, of Umpleby, and others.

MR. C. W. ANDREWS, of the British Museum, has been sent by the trustees to Christmas Island, the expenses of the expedition being defrayed by Dr. John Murray, for the purpose of making collections of the fauna for the British Museum. Christmas Island, about 200 miles south of Java, is only inhabited by some twenty-two persons, but it is soon to be used by a phosphate company, hence the importance of making collections of the fauna and flora, which are unusually interesting, a large proportion of all the species being endemic.

MESSRS. MACMILLAN & Co., Limited, have removed from their familiar building near Covent Garden to St. Martin's street, London, W. C., where they have erected a magnificent building of Portland stone, with a frontage of 106 feet in Whitcomb street, 99 feet in St. Martin's street and 24 feet in Blue Cross street. The editorial and publishing offices of *Nature* are removed to the new site, as also the British agency of SCIENCE.

THE valuable collection of vertebrata made by Mr. A. C. Savin from the forest bed, Norfolk, has been purchased by the British Museum (Natural History).

THE Sunday *Inter-Ocean*, Chicago, has published in successive issues a series of articles on the collection of fossils of Mr. W. T. E. Gurley, from 1893 to 1897 State Geologist of Illinois. In addition to tens of thousands of duplicates and unclassified specimens, the collection is said to contain over 14,000 species, all labeled and in good condition, divided about as follows: Types of batrachians and reptiles, 65; fishes (entire), 145; fish teeth, spines and bones, 765; insects and arachnids, 66; myriapods and crustaceans (exclusive of trilobites),

230; trilobites, 425; annelids, 40; rhizopods and polyzoans, 10; sponges, 60; bryozoans, 760; corals and allied forms, 1,525; lamellibranchs, 1,625; gasteropods, 1,800; cephalopods, 850; pteropods, 60; brachiopods, 3,175; cystids, 35; echinoids, 175; blastoids, 150; star fishes, 50; crinoids, 1,250 (fully 700 with heads and arms complete); hydrozoa, 90; diatoms, 25; plants, 400. The collection, as we have stated, is for sale and it is hoped that it may be secured for some institution in Illinois.

An item in the daily papers to the effect that M. Becquerel has recently been admitted with honors to the École polytechnique, Paris, is of sufficient interest to be quoted here, in view of the fact that he is the son, grandson and great-grandson of eminent physicists. M. Henri Becquerel, his father, is the distinguished professor of physics in the École polytechnique; A. E. Becquerel, the grandfather, formerly professor of physics in the École des Arts et Metiers, is well known for his important contributions to physics, chemistry and meteorology; the great-grandfather, A. C. Becquerel, director of the Paris Museum of Natural History, was a physicist of great eminence, whose discoveries in electro-chemistry are known everywhere; an uncle, L. A. Becquerel, was also a man of science of distinction.

Dr. W. F. Morsell sends us the following further decisions of the United States Board on Geographic Names: In Kansas it should be *Junction*, not Junction City, as generally understood; so, also, in the same State, Empire City and Osage City are similarly abbreviated by the Board. A dozen or more decisions affect names in New York State, but they are unimportant. The creek, mountain and pond in Essex county is *Vanderwhacker*, not Van der Whacken, etc., and the river in the Adirondack region is *Sacundaga*, not Sacandaga, Sacondago, etc., as variously written. The channel north of Staten Island is Kill *van* Kull, not Kill *von* Kull, being of Dutch origin, not German. In Gilmer county, Georgia, there is a postoffice which the Board writes *Santaluca*. This is not from the Spanish, as one would suppose, but from the Cherokee Indian language. Among foreign names, on which there are a few decisions, the Board decides on *Austria-Hungary*, and also favors *Burma* (not Birmah nor Burmah). The German city should be *Mainz*. The German government has protested to our Consuls for spelling the word in the French way—Mayence.

The Macmillan Company have just published the course of lectures by 'The Founders of Geology' given last winter by Sir Archibald Geikie to inaugurate the lectureship in the Johns Hopkins University founded by Mrs. Williams in memory of the late Professor Williams. In the preface to the volume Sir Archibald Geikie speaks of geological work and geological opportunity in America as follows: "Renewing old friendships with some of the veterans of the science, and forming fresh ties of sympathy with many younger workers who have come to the front in more recent years, I could not but be impressed by the extraordinary vitality which geology has now attained in the United States. Every department of the science has its enthusiastic votaries. Surveys, professorships, museums, societies, journals in almost every State, are the outward embodiment of the geological zeal that appears to animate the whole community. This remarkably rapid development of the science has not arisen from any influence derived from without, but springs, as it seems to me, from the marvellous geological riches of the American continent itself. In minerals and rocks, in stratigraphical fulness, in paleontological profusion, in physiographical illustrations, the United States have not only no need to borrow materials from Europe, but in many important respects can produce examples and materials such as cannot be equaled on this side of the Atlantic. Had the study of the earth begun in the New World instead of the Old, Geology would have unquestionably have made a more rapid advance than it has done. The future progress of the science may be expected to be largely directed and quickened by discoveries made in America, and by deductions from the clear evidence presented on that continent."

The *American Geologist* publishes two extraordinary letters from the person who has been appointed State Geologist of Missouri. One of these letters concludes as follows:

"I will now remind you that 'every dog has his day. This is my day and the time is not far distant when your client will wish he had carried his tracks along with him. That you and he have run up against the wrong man is only a question of time. You can make the most of your opportunity and I will pursue the even tenor of my way."

Such occurrences are discouraging, even though it is certain that their duration will be but brief. We are of the opinion that it is the duty of the Geological Society of America, even though it should cost each member one-tenth of his time and of his income for one year, to see that the facts of the case are brought before the Legislature and the people of Missouri.

THE outgoing Vice-Chancellor of Cambridge University stated in a valedictory address to the members of the Senate that the gifts to the museums and laboratories during the past year include a cast of the famous specimen of *Iguanodon bernissartensis* presented by his Majesty the King of the Belgians, a refrigerating machine for experimental purposes presented by Mr. T. B. Lightfoot, a valuable collection of dried plants presented by Mrs. C. Packe, a very important library of geological books presented by Professor Wiltshire, M.A., of Trinity College, who has on previous occasions shown himself to be a most generous benefactor to the University, and two collections of great historical interest presented by the family of the late Charles Darwin.

ACCORDING to the *Statist*, the yield of gold for 1896 was about £45,000,000, against an average of £21,738,000 for the period of 1881–90. For 1896 the production by fields was as follows: United States, £10,800,000; Australasia, £8,988,000; Transvaal, £8,604,000; India, £5,911,000; Russia and other countries, £10,697,000—or a total of £45,000,000. The grand aggregate of the gold production since 1850 inclusive is, in round figures, £1,163,000,000, or, approximately, 300,000,000 ounces of gold.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Academic Freshman class at Yale University is said by the New York *Evening Post* to number 58 less than last year, while there is an increase of 15 students in the Scientific School. There is, this year, an increase of about 300 students at the University of Michigan, chiefly in the law department, and of over 100 at Columbia University. A decrease of about 50 students in the undergraduate department of Brown University is reported.

THE New York *Tribune* states that the University of Missouri receives $23,023 from the estate of the late John C. Conley, under the operation of a law recently passed by the Legislature which provides that if a man dies leaving no father, mother or direct lineal descendant a certain per cent. of his estate, excluding any amount left for charitable or religious purposes, must go to the State University.

DR. R. C. CHRISTIE, formerly professor at Owens College, Manchester, has given the College the whole of his share in the residuary estate of the late Sir Joseph Whitworth, estimated at £50,000. The College has also received gifts of £20,000 for the erection of a physical laboratory and £6,000 for its maintenance and of £1,500 towards the erection of a museum.

THOSE who last winter objected to the action of Cornell University in deciding to follow the example of the great English and other American universities and award the degrees A.B. and A.M. for scientific as well as for classical studies probably do not read this JOURNAL. Otherwise we should like to call their attention to the fact that Cornell in its short history has conferred forty-seven kinds of degrees, and ask whether it is an advantage to increase or decrease the numbers of kinds of degrees awarded for liberal studies.

THE Board of Overseers of Harvard University have concurred with the president and fellows in their votes changing the title of Hugo Münsterberg from professor of experimental psychology to professor of psychology, and of William James from professor of psychology to professor of philosophy.

DR. WILLIAM S. CARTER, of the University of Pennsylvania, has been elected professor of physiology in the University of Texas.

DR. CHARLES W. HARGITT, professor of biology in the College of Liberal Arts of Syra-