done on public buildings throughout the country.

It is reported that the Secretary of Agriculture will ask Congress at its next session to authorize the establishment of an Agricultural Experiment Station in Alaska. Suitable scientific experiments would be of great value in showing what agricultural products and domestic animals could be introduced to advantage.

According to the New York *Evening Post*, George A. Brill of Poughquog, Dutchess county, who was graduated from Cornell University in 1888, recently received a cable despatch from Li Hung Chang offering him a liberal sum to organize and manage a model farm in China under the government. He will accept the offer, and will soon leave for China to enter upon his duties.

Professor Bessey writes in the *American Naturalist* that he knows from many years of personal experience, and this not in an old and wealthy community, that the purchase of good compound microscopes (duty free), and the installation of small but efficient laboratories in secondary schools, is as easily accomplished for botany as is the purchase of necessary apparatus and the fitting-up of proper laboratories for chemistry. In the new State of Nebraska nearly every accredited high school is now using the compound microscope in the study of plants selected as types of all the greater groups of the vegetable kingdom.

At the request of Mr. Melvil Dewey, on behalf of the American Library Association, the U. S. government has agreed to issue postal cards of the standard library size for index cards.

The second International Library Conference was opened on July 13th in London by the Lord Mayor. Sir John Lubbock gave the presidential address. Papers were subsequently presented by Mr. J. T. W. MacAlister, of the Royal Medical and Chirurgical Society of London; by Mr. Henry Tedder, Mr. Herbert Jones, Mr. Alderman Rawson, Mr. Melvil Dewey and others.

At the recent conversatzione at University College, London, apparatus to be used in a course in experimental psychology was exhibited. The course will be given under the direction of Professor James Sully and Dr. W. H. R. Rivers.

Lord Kelvin has written a letter to the London *Times* stating that in his address at the Pender memorial meeting (quoted in the last issue of this Journal) he inadvertently did serious injustice to the late Sir Curtis Lampson when he said that it was owing to Mr. Pender alone that the Atlantic Telegraph Company was kept afloat from 1858 to 1864. In fact, a large part of the heavy burden of keeping the original Atlantic Telegraph Company alive in the disheartening circumstances of the failure of the 1858 cable, after the short time of its successful working, was voluntarily undertaken by Mr. Lampson when he and Mr. Pender continued to act as directors and nearly all the others, incluing Lord Kelvin himself, resigned.

The new underground railway in London, extending from Liverpool street to Bayswater, has been an engineering feat of considerable scientific interest. The tunnels are steel tubes 11 feet 6 inches in diameter driven through the clay, each tunnel containing one track. The electric equipment, including the elevators, is supplied from America.

The *Railway and Engineering Review*, one of the best of the technical journals, publishes in its issue of July 3d an editorial article two columns in length advocating the use of the metric system and maintaining that no great inconvenience would be caused in its practical application.

UNIVERSITY AND EDUCATIONAL NEWS.

The Pennsylvania Legislature appropriated $200,000 to Lehigh University, and Governor Hastings has signed bills granting $150,000. The funds of Lehigh University are chiefly in stocks of the Lehigh Valley Railroad left by the late Asa Packer and no dividends have been paid for three years.

The will of the late Alexander Wheelock Thayer gives $30,000 (subject to a small annuity) to Harvard University as an endowment fund to assist poor students.

MR. D. A. BEAMER has given $10,000 to the Laman Missouri Educational Association. The Boston *Transcript*, in announcing this gift, remarks: "The Association has a capital of $20,000, fully paid up, and will establish and operate an up-to-date college of a high order!"

THE following advancements and new appointments in the scientific departments of the University of Texas for the year 1897–'98 have been made: Thomas U. Taylor has been advanced from the grade of associate professor of applied mathematics to that of professor; Dr. Sidney E. Mezes from the grade of adjunct professor of philosophy to that of associate professor; Dr. Henry Winston Harper from the grade of adjunct professor of chemistry to that of associate professor, and W. W. Norman from the grade of adjunct professor of biology to that of associate professor. Dr. Joseph Baldwin, the venerable professor of pedagogy, has been made emeritus professor, and Mr. William S. Sutton, City Superintendent of the Houston Schools, has been elected professor of pedagogy; Mr. E. P. Schoch returns to the University as instructor in chemistry.

AT the Oshkosh Normal School the following appointments have been made: H. Fling, Ph.D., Chicago, to the chair of biology and chemistry; Frank A. Mitchell to the chair of geography; F. D. Sherman, Ph.D., Leipzig, to the chair of pedagogy and psychology.

AT a meeting of the electors to the Savilian professorship of geometry held on July 8th, Mr. William Esson, M. A., F. R. S., fellow of Merton College, was elected professor in the room of the late Professor Sylvester.

MR. ERNEST WILLIAM MACBRIDE, fellow of St. Johns College, Cambridge, and senior demonstrator in the zoological laboratory of the University, has been appointed to the new chair of zoology in McGill University, endowed by Sir Donald A. Smith. Mr. MacBride has held the Hutchinson studentship for research at Cambridge and was awarded the Walsingham Medal in 1895. He has published an important series of Monographs on the Echinodermata.

UNDER the will of Mrs. Gee, widow of the late Robert Gee, lecturer on the diseases of children in the medical school associated with University College, Liverpool, that college receives over £7,000 for the purpose of advancing the medical department and promoting study and research in medical science. It has been decided by the medical faculty to institute a Robert Gee fellowship in anatomy of the value of £100 for one year, and four entrance scholarships of £25 each for one year.

THE Council of St. Hugh's-hall, Oxford, has recently accepted from Miss Clara Evelyn Mordan a donation of £1,000 to found a scholarship to be called by her name.

THE *Lancet* states that Professor Engelman, in taking the late Dr. Du Bois-Reymond's chair at Berlin, is arranging certain changes in the Physiological Institute and its four departments. The first, for microscopical and biological work, will remain under the charge of Professor Fritsch. Similarly, the second, for chemical physiology, will continue under its present director, Professor Thierfelder. The third, for special physiology, will be greatly enlarged, and the professor himself will take part in its work in conjunction with the present director, Dr. Immanuel Munk. The fourth department, for physical physiology, will also be largely increased; it will be called the Department for the Physiology of the Sensory Organs and will remain under the direction of Professor König. In addition to extensive new buildings, the supply of apparatus will be largely augmented. The lectures will be given by the professor in a course running through two semesters, but during the last four weeks in the summer Professor König will lecture on the sensory organs, and during the first four weeks of the winter Professor Thierfelder will lecture on physiological chemistry.

PRESIDENT ANDREWS, of Brown University, has been requested by a committee of the Board of Trustees not to discuss the question of the free coinage of silver, and has consequently been compelled to resign from the presidency of the University. The trustees did not base their action on the supposed evil effects of President Andrews' teaching, but on the alleged ground that the University had, through the

expression of his views, lost gifts and legacies and might lose more. The occurrence is extremely regrettable. It might have been better if President Andrews had not felt called upon to advocate the views of a political party unpopular in Rhode Island, but if the trustees have by their action increased 'gifts and legacies' to Brown University they have done harm to the cause of education. The first part of President Andrews' letter of resignation is as follows:

Believing that, however much I might desire to do so, I should find myself unable to meet the wishes of the corporation as explained by the special committee recently appointed to confer with me on the interests of the University without surrendering that reasonable liberty of utterance which my predecessors, my faculty colleagues and myself have hitherto enjoyed, and in the absence of which the most ample endowment for an educational institution would have but little worth, I respectfully resign the presidency of the University, and also my professorship therein, to take effect not later than the first day of the approaching September.

DISCUSSION AND CORRESPONDENCE.

AMPHIBIA OR BATRACHIA.

Professor Gill in his excellent address 'Some Questions of Nomenclature,' delivered at the Buffalo meeting of the American Association for the Advancement of Science,* makes the following remarks about the name *Amphibia* (p. 600): "Why should the name Amphibia disappear and Batrachia and Reptilia usurp its place? Amphibia is a far better name for the Batrachia, and in every way defensible for it. The name had especial relation to it originally, and it was first restricted to it as a class." In the Editor's Table of the *American Naturalist*, December, 1896, p. 1027, we read the following from the pen of Professor Cope: "It is difficult to eradicate from scientific literature a name or word which has become current, even after it has been found to be an expression of ignorance or error. Thus some names introduced into zoology die hard. Perhaps the most pestilent pretender of the list is the word Amphibia, which is so frequently used instead of the proper name of the class Batrachia. The name Amphibia was originally applied to a combination of the Reptilia and Batrachia, before the fundamental differences between the two were known. When the Batrachia were first separated from the Reptilia the new name was naturally applied to the new division, and the name Amphibia would have been more applicable to the larger division of its former self, *i. e.*, the Reptilia. As, however, its definition accorded with neither the Reptilia nor Batrachia, it was not used for either; nor was it introduced to take the place of Batrachia with a definition, until a few years ago by Huxley. This was done in defiance of the universal usage of naturalists at the time, and probably in ignorance of the real state of the case, since it frequently happens that men engaged in the real work of biological science find questions of names irksome and stupid. Nevertheless it is a distinct advantage always to have but one name for one thing, and that name should be the oldest which was applied to the thing in question as determined by the definition given. Applying this principle, the name Batrachia has a quarter century priority over Amphibia."

I shall show that the opinion of Professor Gill is the only one that can be accepted.*

In the 10th edition of Linné† we have the following:

Classis III. *Amphibia.*

I. *Reptiles* os respirans: Pedes quattuor.

103, *Testudo*; 104, *Draco*; 105, *Lacerta*; 106, *Rana.*

II. *Serpentes*, os respirans, Pedes Pinnæve nullæ.

107, *Crotalus*; 108, *Boa*; 109, *Coluber*; 110, *Anguis*; 111, *Amphisbæna*; 112, *Cœcilia.*

III. *Nantes*, Spiracula lateralia, Pinnæ natatoriæ.

113, *Petromyzon*; 114, *Raja*; 115, *Squalus*; 116, *Chimæra*; 117, *Lophius*; 118, *Acipenser.*

The next author of importance to be mentioned is Alexandre Brogniart. His 'Essai

* Science, N. S., Vol. IV., No. 95, Oct. 23, 1896, p. 581-601.

*Nine years ago I followed Cope (Beiträge zur Morphogenie des Carpus und Tarsus der Vertebraten I. Theil. Batrachia. Jena, Gustav Fischer), but later I found that I was mistaken.

† Caroli Linnæi Systema Naturæ. Tomus I. Editio Decima, Reformata Holmiæ. 1758. Pp. 194–238.