

ing into a profession demanding learning as well as experience.

Largely under his energetic direction, the legal enactments of the empire for the provision of safeguards in the operation of steam-engines and boilers took correct form and he was appointed to important positions under the laws enacted to secure their proper enforcement. He taught his classes and he taught his public with equal fruitfulness and zeal. He was a teacher of the most admirable sort, exact, clear-sighted, endowed with that imagination without which no teacher can instruct and no investigator can either advance or help others to advance in research, friendly and patient, ambitious and aggressive, enduring and persevering, a leader always in the front rank and always beckoning from the van, never pushing his men on from the rear. He accomplished a notable life's work as instructor, investigator and author.

In personality, Radinger was interesting, attractive and impressive. The writer, as colleague on the International Juries at Vienna and at Philadelphia, 1873-1876, became greatly interested in the quiet, yet earnest and enthusiastic, scholar, philosopher and teacher. Inquiring into every detail of the, to him, astonishingly numerous wonders of invention and construction in the 'Yankee sections'; noting each device, its form, proportions and special construction and finish with the greatest care; comparing its dimensions with its work and the relation thus established by its designer with that usual in his own country; studying the methods of piece-work and of manufacture by production of interchangeable parts; excited over the marvelous watchmaking illustrated at the Centennial, or, after the jury had adjourned for the day, wandering in the art galleries and the halls of sculpture, or into the exhibits of the great publishers in search of interesting text or fine bindings, the broad grasp and unbounded intellect of the man were always revealed.

He was one of those generous men who, at the Vienna exposition, admitted the right of George Corliss to the 'Ehren Diplom,' although not a steam-engine of his make was exhibited. Radinger, von Grimburg, Reu-

leaux, Tresca, Dwelshauvers, Hartig, Schneider of Creusot, and a few others, advocated the highest award to the great American inventor, as they agreed, on the ground that the proof of his genius and of his enormous usefulness to the world was to be found in every section in the whole exhibition; every section contained one Corliss engine, and often several exhibits illustrated the work of the great mechanic.

The teacher, the man of science, the man of affairs, the investigator and author, the noble, kindly, generous and judicial man, will dwell in the memories of all who knew him and will be mourned by his colleagues and his friends as long as they live. His works will long remain, monuments to his life, his labors and his achievements. R. H. THURSTON.

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#### SCIENTIFIC NOTES AND NEWS.

THE spring meeting of the Council of the American Association for the Advancement of Science will be held on Thursday afternoon, April 17, in the Assembly Hall, Cosmos Club, Washington, D. C.

DR. ALEXANDER AGASSIZ, who is now in Europe after his expedition to the Maldivé Islands in the Indian Ocean, will return in time to preside at the meeting of the National Academy of Sciences which will be held at Washington next week.

DR. JAMES E. RUSSELL, dean of Teachers' College, Columbia University, has returned from a tour of inspection of the school system of Porto Rico, made at the invitation of the Porto Rican government.

LAST year the Misses Caroline and Olivia Phelps Stokes placed in the custody of the New York Botanical Garden the sum of \$3,000, the interest to be employed in efforts to preserve our native flora. The income for the current year was disposed of in the form of three competitive prizes, of \$50, \$30 and \$20 respectively, for the best essays on this subject. The first of these prizes has just been awarded to Dr. F. H. Knowlton, editor of *The Plant World*. Dr. Knowlton's essay is printed in the March number of the *Journal* of the New York Botanical Garden.

MR. SHERBURNE W. BURNHAM, clerk of the U. S. Circuit Court since 1892, has resigned his position to devote his time to astronomy. Mr. Burnham was senior astronomer at the Lick Observatory in California when he accepted the Federal court clerkship.

DR. W. F. DREYFUS, assistant in chemistry in Columbia University, has been appointed chemist to the Department of Public Charities in New York City.

DR. LEONIDAS H. LAIDLEY, of St. Louis, has been appointed medical director of the St. Louis World's Fair.

PROFESSOR VIRCHOW's health is said to be quite satisfactory. The fracture of the femur has united, and he gets up every day, but it will be some time before he will be able to resume his university work.

M. SANTOS-DUMONT, the Brazilian aeronaut, is a passenger on the *Deutschland*, due to arrive this week in New York.

PROFESSOR SAMUEL L. PENFIELD, of Yale University, will lecture on April 22 under the auspices of the department of geology of Columbia University on 'Possibilities in Geography resulting from the Revival of an Ancient Method of Map Making.'

THE portrait of Benjamin Franklin, executed by Gainsborough at the time of the signing of the Treaty of Paris, and lately given to the University of Pennsylvania by the class of 1852, has been hung in the University Library.

A MEMORIAL bronze tablet has been placed on the Albany (N. Y.) Academy in memory of Joseph Henry, stating that his experiments in electricity were made in that building while he was acting as professor of mathematics.

THE death is announced of Charles Letourneau, professor of the history of civilizations in the Paris School of Anthropology, secretary-general of the Paris Society of Anthropology, and a member of the commission for preserving the Megalithic Monuments of France. Among Professor Letourneau's many noteworthy works may be mentioned: 'La sociologie d'après l'ethnographie'; 'L'évolution

de la morale'; 'L'évolution du mariage et de la famille'; 'L'évolution de la propriété'; 'L'évolution politique dans les diverses races humaines,' and 'L'évolution juridique dans les diverses races humaines.'

JOHN M. D. MEIKLEJOHN, professor of the theory, history and practice of education at the University of St. Andrew's; is dead. He was the author of many works, including a translation of Kant's 'Critique of Pure Reason.'

THE British National Physical Laboratory was formally opened on March 19. Sir William Huggins, president of the Royal Society, presided, and addresses were made by the Prince of Wales, Lord Rayleigh, Lord Kelvin and others.

THE Dudley Observatory at Albany, N. Y., recently celebrated its fiftieth anniversary, an address being made on the occasion by Mr. Lewis Boss.

A CABLEGRAM has been received at San Francisco, stating that the U. S. Fish Commission steamship *Albatross* arrived in Honolulu on March 24. The vessel is under command of Commander Chauncey Thomas, U. S. Navy, and has on board Dr. C. H. Gilbert, J. C. Snyder, and W. K. Fisher, of Stanford University, and Professor Nutting, of the University of Iowa, who will make a collection of fishes and marine vegetation. Very rough weather was encountered on the trip. The *Albatross* spent several days dredging and sounding. She will remain in port about six days, and then continue her exploring expedition around the different islands.

MR. ZENAS CRANE, of Dalton, Mass., has announced his intention to give Berkshire County a Museum of Natural History and Art. The building will cost \$40,000, and Mr. Crane will give his collection of natural history and works of art, valued at \$20,000.

MR. ANDREW CARNEGIE has offered to erect a public library at Havana at a cost of \$250,000 on his usual conditions. The municipal council has voted to send a letter to Mr. Carnegie saying that it had been informed that he would give Havana this sum for a public

library, provided that the city would give land for the building and guarantee \$25,000 a year for improvements and the maintenance of the library. The letter will also say that the council has decided to give a site for the proposed library, and that it accepts the provisions attached to the gift, but that the law does not allow it to bind the action of future municipal councils in matters of this kind.

THE Blue Hill Meteorological Observatory is being enlarged, at a cost of five thousand dollars, by the construction of a fire-proof library, which will contain Mr. A. L. Rotch's valuable and rapidly increasing collection of books, pamphlets and periodicals relating to all branches of meteorology.

THE Goldsmiths' Company will commemorate the coronation of King Edward by contributing £5,000 to the fund of £130,000 needed for the plan being elaborated by the conjoint board of the Royal Colleges of Physicians and Surgeons for investigating the causes, prevention, and treatment of cancer. Mr. H. L. Bischoffsheim has offered to contribute £5,000 to the fund, and another donation of the same amount, as well as other smaller sums, have been promised.

THE Government of Queensland has offered a reward of \$25,000 for the invention of some satisfactory means for destroying the 'prickly pear.'

At the (1900) Annual Meeting of the Society for the Promotion of Agricultural Science it was decided to elect the officers by the postal system. Each member should nominate persons to fill the offices, which are: president, secretary-treasurer, one member of the executive committee. Members are also requested to nominate candidates for membership, with full reference to valuable work performed, and, if possible, secure testimonials from other members. The next meeting will be held at Pittsburg, Pa., in conjunction with the American Association for the Advancement of Science; the first session will be called at 3 o'clock p. m. on Monday, June 30, 1902. Replies should be addressed to the President, Professor W. H. Jordan, Geneva, N. Y.

THE New York University Chemical Society has recently been organized by the students, with Edward T. Hendee, 1900, *President*; Arthur E. Hill, 1901, *Vice-President*; and Franklin D. Byxbee, 1902, *Secretary and Treasurer*.

At the monthly general meeting of the Zoological Society of London on March 20, Dr. R. Broom, Dr. Carl Chun, M. Philippe Dautzenberg, Colonel Brian Mahon, C.B., D.S.O., and Dr. A. Donaldson Smith were elected corresponding members. It was stated that there had been 73 additions made to the society's menagerie during the month of February, amongst which special attention was directed to a fine young male snow leopard from Ladakh, presented by Captain H. I. Nicholl, and to a pair of Prjevalsky's horses from Western Mongolia, received on approval and new to the Society's collection.

It is reported from Washington that the plan which started at the beginning of the present session of Congress as a proposal that the president should recommend, and congress create, a department of industries, seems to have been revived within a little while in another form. The department of commerce is in a fair way to become an accomplished fact; and in the course of procuring the necessary legislation for it, there has been shown a desire on the part of many of the scientific experts in the government's employ to have their bureaus grouped, instead of being scattered through several departments. There will be an effort to attach to the department of commerce act a clause giving the president authority to transfer from other parts of the service to the Department of Agriculture such scientific bureaus as appear to his satisfaction to be cognate to the work of this department. If this is not done, it may be attempted to attach a paragraph authorizing a commission, consisting of one senator and one representative, and possibly three scientific experts, to look into the question of grouping the scientific bureaus in the manner indicated; the report of the commission to furnish a basis for further legislation.

THE third annual report of the Liverpool

School of Tropical Medicine has been issued. The despatch of Major Ross to Sierra Leone brings up the number of expeditions sent out by the school for purposes of medical research and sanitary measures in the tropics to eight. Among the students trained at the school in the past year were medical men from Canada, India, East Africa, Penang, Sierra Leone, Uganda, Germany, Belgium and Sweden. More than 130 cases of tropical diseases were treated at the school.

It appears that Germany has determined to regard in the light of a 'present' from the Chinese government the astronomical instruments stolen by her soldiers from the Chinese observatory at Pekin. This view was set forth by Count von Bülow, the imperial German chancellor, in a speech delivered in the German Reichstag, a copy of which has been received in Washington. Count von Bülow said: "The instruments have not been restored because the Chinese government attaches no importance to their possession, and in reply to German inquiries it placed them at the disposition of the German government. Another consideration is that, in accordance with the peculiar views of the Chinese, the great mass of that people would have supposed that the instruments were restored by order of the Chinese government, which would have damaged German prestige in East Asia. The Dowager Empress of China, a very clever woman who understands the political situation, would have been distinctly offended, while the masses would have thought that Germany had sustained some terrible defeats. The instruments ought now to be placed in the category of presents from government to government, which has long been customary on both sides in the intercourse with the Chinese government."

MR. STEVENS sold recently in London the collection of British lepidoptera formed by the late Mr. Philip Crowley. Among the more important lots were nine specimens of *Dispar*, or large copper, the now extinct British butterfly. These averaged £5 apiece, one female realizing £7. An assortment of exotic butterflies also realized good prices.

THE London *Times* says: There is on view in the library of the Royal Institution, an exhibit of the artificial dye stuffs produced by the Badische Anilin und Soda Fabrik, together with specimens of a great number of fabrics and materials, from silk to sealing-wax, to which they can be applied. Those who are interested in the bearing of technical progress abroad upon British industry will note the extraordinary range of colors produced from raw materials which are abundant in this country and of which English chemists first discovered the value. They will be not less painfully impressed by the excellence and variety of the artificial indigo dyes, the production of which now equals one fifth of the world's consumption and constitutes a very pressing danger for a great Indian industry.

It is said that after prolonged experiments in sending four telegraphic messages each way simultaneously over a single wire, the German postal department has accepted the octuple transmitter invented by the late Professor Henry A. Rowland, of the Johns Hopkins University. The experiments were conducted between Berlin and Hamburg. Between 300 and 350 words were transmitted a minute. It is understood that the German postal department intends to introduce the Rowland system between Berlin, Hamburg, Cologne, Leipzig and Frankfort.

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#### UNIVERSITY AND EDUCATIONAL NEWS.

THE daily papers have reported the remarkable bequest of the late Cecil Rhodes for education and the promotion of a good understanding between Great Britain, Germany and the United States. It appears that Mr. Rhodes has provided two scholarships for each state and territory of the United States and from each British colony, and for fifteen from Germany, the students to study at Oxford. The amount of the bequest is reported to be about \$10,000,000, and the value of each scholarship about \$1,500, but this appears to be uncertain. Mr. Rhodes also left £100,000 to Oriol College, Oxford.