

investigate how far this presence of free mercury affects the therapeutic value of a salt so largely used for medicinal purposes.

In the *Comptes Rendus*, P. Ivon describes the use of calcium carbide as a test for absolute alcohol. If any water is present in the alcohol it decomposes the carbide with the evolution of acetylene. Calcium carbide may also be used for the dehydration of alcohol, one part being used to four parts of 90–95 % alcohol. Any acetylene dissolved in the alcohol is removed by anhydrous copper sulfate, and in one, or at least two, distillations the alcohol is rendered absolute.

THE atomic weight of boron is the subject of a paper recently read before the Chemical Society (London) by F. P. Armistage. The method used was the determination of the water of crystallization in borax. Great care was used, both in drying the crystals, so that there should be no efflorescence, and in dehydrating the crystals. The result obtained, 10.959 ( $O = 16$ ), differs but 0.006 from that obtained by Ramsay and Aston by distilling sodium biborate with hydrochloric acid and methyl alcohol. In the discussion which followed the paper there was considerable criticism of depending upon water of crystallization in atomic-weight determinations.

At the same meeting a paper was presented by E. Sonstadt on the dissociation of potassium chloroplatinate in dilute solutions and the production of platinum monochloride. When the chloroplatinate is heated in a solution of 10,000 parts water the solution becomes turbid, and after some days' heating a precipitate is formed, yellow and non-crystalline, and consisting, according to the author, of hydrated platinum monochloride,  $PtCl$ , while hydrogen peroxide is left in the solution. The monochloride dissolves in solution of sodium carbonate and acids, but is deposited ap-

parently unchanged by subsequent dilution. Much interest will attach to further study of this salt, not only from its being the only representative of univalent platinum compounds, but also from its method of formation by direct dissociation. J. L. H.

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SCIENTIFIC NOTES AND NEWS.

THE United States Fish Commissioner, Mr. George M. Bowers, has appointed Professor H. C. Bumpus, Brown University, Scientific Director of the Wood's Holl Station. Professor Bumpus is Secretary of the Trustees of the Marine Biological Laboratory at Wood's Holl, and in the past has been very closely associated with the work done there. His recognized scientific attainments and executive ability, as well as his local knowledge of Wood's Holl and the vicinity, make this a most admirable appointment, full of promise for the prosecution of the scientific and economic work of the Fish Commission under the present administration.

THE daily papers have contained columns and pages on the alleged discovery, by Professor Samuel Schenk, of the University of Vienna, of a method of regulating the sex of children, and on the alleged discovery, by Dr. George Waltemath, of Hamburg, of a second moon for the earth. It may consequently be desirable to state that Professor Schenk has made no publication bearing on the production of sex, and that no scientific evidence has been offered for the existence of a second moon.

PROFESSOR W. A. ROGERS, died at Waterville, Me., on March 1st, aged sixty-one years. He was assistant professor of astronomy in the Observatory of Harvard University from 1875 until 1886, when he accepted a call to the professorship of physics and astronomy at Colby University. He had expected to enter on a professorship at Alfred University, N. Y., on April 1st. Professor Rogers was a member of the National Academy, and a past Vice-President for the American Association for the Advancement of Science. He made important contributions to astronomy and physics, especially to the technique of measurement, of which we hope to give some account in a future number of this JOURNAL.

MR. W. WHITAKER, F.R.S., has been elected President of the Geological Society, London, succeeding Dr. H. Hicks, F.R.S.

A TESTIMONIAL in recognition of the services of Mr. Francis H. Webb as Secretary of the Institution of Electrical Engineers, London, was presented to him on February 1st. The testimonial took the form of a cheque for over £600, together with a diamond brooch for Mrs. Webb, and an illuminated address to Mr. Webb, was read by Mr. Henry Edmunds, the secretary to the committee.

THE Paris Société de Géographie has awarded its gold medal to M. Sven Hedin for his explorations in Central Asia to which we have already called attention.

THE Society of Colonial Studies of Brussels has received a gift of \$5,000 to promote the study of the diseases of the Congo, and offers two prizes of \$500, one for some notable addition to our knowledge of the evolution of the hæmatozoon of Laveran within and without the body, and the other for the discovery of the origin of hæmoglobinuric fever.

A PRIZE of \$3,000, named in honor of Galileo Ferraris, will be awarded at the approaching exhibition at Turin for the most valuable invention exhibited for the application of electricity to industrial purposes.

THE ninth Congress of French Alienists and Neurologists will be held this year at Angers on August 1st and following days. The questions proposed for discussion are: (1) Post-Operative Psychological Disturbances; (2) The Part played by Arteritis in the Pathology of the Nervous System; (3) Transient Delirium from the Medico-Legal Point of View.

ON the motion of M. Brouardel, the Paris Academy of Sciences has appointed a commission to study the question of the propagation of tuberculosis. The commission is to consist of the six members of the section of medicine and surgery, the two permanent secretaries and MM. Brouardel, de Freycinet, de Jonquières, Chauveau, Duclaux, Arm, Gautier.

THE British government has decided to appoint a Royal Commission to inquire into the bacterial treatment of sewage.

PROFESSOR J. A. FLEMING, F. R. S., has begun a course of five lectures at the Royal Institution, London, on 'Recent Researches in Magnetism and Diamagnetism.' Friday evening discourses have been given by Captain Abney, F. R. S., on 'The Theory of Color Vision applied to Modern Color Photography,' and by Professor T. E. Thorpe, F. R. S., on 'Some Recent Results of Physico-Chemical Inquiry.'

THE following lectures will be delivered at the Royal College of Physicians of London: the Goulstonian Lectures—Dr. John Rose Bradford, on March 15, 17 and 22; 'Observations on the Pathology of the Kidneys.' Lumleian Lectures—Sir Richard Douglas-Powell, on March 24, 29 and 31, on 'The Principles which govern Treatment in Diseases and Disorders of the Heart.' The Milroy Lectures, which should have been delivered by Dr. S. Monckton Copeman, on 'The Natural History of Vaccinia,' on March 3, 8 and 10, are unavoidably postponed, owing to the illness of the lecturer, to May 3, 5 and 10.

THE teachers of chemistry in the Somerville district, Massachusetts, met at the Malden High School on February 9th, and listened to the following papers: 'The Harvard Requisition in Chemistry,' Charles R. Allen; 'Home Work for Quantitative Pupils,' 'Chemical Theory,' B. F. Holden; 'Note Books,' Emerson Rice; and 'Reviews,' by Clarence Boylston.

THE Onondaga tribe of Indians, which is the Wampum Keeper of the Six Nations, has notified the Regents of the University of the State of New York that the University has been designated as the Wampum Keeper of the tribe and the Wampum belts will consequently be deposited in the State Museum.

THE Maryland Legislature has passed, by a vote of 65 to 20, the bill allowing the Trustees of the Sheppard Asylum to alter the name of the Institution to the Sheppard and Enoch Pratt Hospital in order that the institution may receive the one and-a-half million dollars bequeathed by the late Enoch Pratt.

THE Post-Office Department has ordered 25,000,000 postal cards of the standard library size intended for card indexes.

THE first meeting of the British Royal Com-

mission for the Paris Exposition of 1900 was held on February 18th, at Marlborough House. The Prince of Wales, the chairman, made an address, in the course of which he said that the exhibits will be divided into 18 groups, comprising 120 classes, in which provision will be made for the display of every kind of art, industry and manufacture. The guiding principle is that similar products, from whatever part of the world they may come, should be shown side by side, and in this respect the Exhibition of 1900 will differ from its predecessors, in which the products of each country have usually been collected together. The arrangement, though less favorable to a striking national display, has many advantages, and admits of a ready comparison of the arts and industries of one country with similar arts and industries of others. The Prince of Wales stated that in comparison with the appropriation of Germany, £250,000, and of Switzerland, £66,000, that of Great Britain was inadequate, and he hoped that the Treasury might be prevailed upon to increase it.

AN international exhibition of products, of industry and aliments is to take place at Prague from the 15th to the 22d of May, this year. The exhibits will include all industrial products, food articles, eatables, and all kinds of beverages, hygienic and pharmaceutic products, general novelties, inventions and sporting accessories.

AT its annual meeting, Feb. 2d, the Russian Geographical Society awarded, says *Nature*, a special Constantine medal to Dr. Nansen; a Constantine medal to V. I. Roborovsky, for his journeys in Central Asia; the Count Lütke's medal to I. I. Strelbitzky, for his journeys in Persia and Manchuria in 1891-96; the new Semenov's medal to Dr. Sven Hedin, for his three years' journeys in Central Asia. A large gold medal of the Society was awarded to I. K. Zhdanoff, for his ethnological works, and especially for work on 'Russian Epical Poetry,' and small gold medals to Th. Witram, for pendulum measurements in the far East; to F. Sperck, for his large work on the climate of the Astrakhan region; to S. Rybakoff, for the collection of specimens of musical texts of songs amongst

the Ural natives; and to S. Gulishambaroff, for his work 'The World's Trade in the Nineteenth Century and Russia's Part in it.' Silver medals were awarded to M. M. Pastukhoff, for his ascension of the Elbrus; Abels, for hypsometrical measurements in the Urals; D. A. Fedchenko, for a communication on the Talas Alatau; Timonoff, for a paper on the water-communications on the tributaries of the Amur; Sapozhnikoff, for work on the glaciers of the Altai; Kovanoko and Semkovskiy, for the organization of international balloon ascensions in which the Society took a part; and to Prince Obolensky, Tomilovskiy and Utyesheff, for their daily observations upon the motions of the clouds.

THE London correspondent of the New York *Evening Post* cables that the polar expedition upon which the Duke of the Abruzzi will start this summer will be both expensive and extensive. King Humbert contributes \$100,000; the Duke devotes his whole income of \$30,000 a year to the object, and, if necessary, also will draw upon his capital. After leaving Franz Josef Land, on foot or in sledges, the expedition will establish posts along the route. The Duke takes twenty experienced Italians, fifty Esquimaux and a number of dogs.

THE German Antarctic Expedition Committee have decided to send an expedition to the South Polar regions under the direction of Dr. Erich von Drygalski.

SECRETARY WILSON, of the Agricultural Department, in pursuance of his determination as far as practicable to utilize the agricultural seed appropriation in securing 'new, rare and valuable' seeds, dispatched Professor Nilse E. Hansen, professor of horticulture at Brookings, S. D., to eastern Europe and Asia to secure new seeds and plants. Professor Hansen is now preparing his report for publication, after an extended trip through eastern Russia, Trans-Caucasia, Russian Turkestan, western China and Siberia. Many promising varieties were obtained, and about three car-loads of seed will be distributed to State experiment stations and others. These seeds, it is expected, will be chiefly of value in the arid regions, the purpose of Professor Hansen's trip being to ob-

tain such as were distinguished for resistance to drought and heat.

A MAP of Alaska, showing known gold-bearing rocks, with descriptive text containing sketches of the geography, geology and gold deposits and routes to the gold fields, has just been issued by the U. S. Geological Survey, in pursuance of a recent joint resolution of Congress. These pamphlets are to be had for the asking. There will be 40,000 copies in all. Most of them go to the Congressional document rooms, whence they will be distributed to the public on orders of Senators and Representatives; the remainder issue from the Survey office. The map, which is on a scale of 57 miles to the inch, is specially designed for the use of the miners, prospectors and travelers in Alaska. The region represented extends from Bering Strait eastward to the Rocky Mountains and British Columbia, and from the 54th parallel northward to the Arctic Ocean, embracing the drainage basin of the Yukon River from its mouth to its most distant headwaters. The principal topographic features, as plateaus, mountain regions and valleys, are indicated by hachures. More is known of the valleys and regions bordering the navigable drainage ways than of other portions of the country. Back from the rivers lie extensive rugged tracts still comparatively unexplored. The lines of magnetic variation are laid down. The Fort St. Michael Military Reservation, on the coast, is outlined. The center of this reservation is St. Michael Island, and it includes the great delta of the Yukon, the head of Norton Sound and Golofnin Bay. The map includes two smaller, local, larger-scale maps, one of the Fortymile and the Klondike gold-mining regions, the other of the mountainous area between the coast and the interior above Linn Canal, showing the passes, routes and trails leading from tide water to the headwaters of the Yukon. It is in part colored, showing at a glance by color and by name where gold and coal have been found, in both the interior and the coastal regions, especially the gold-bearing rock formations of the Fortymile and Birch Creek series. These gold-bearing rocks are seen to trend from the Klondike region for nearly 600 miles northwestward, across the great elbow of

the Yukon, toward the coast. The descriptive text accompanying the map, consisting of 44 pages, contains useful information for the practical prospector and miner. It gives a brief historical, geographical and geological sketch of the country, describing its rivers, mountains, climatic conditions, routes, trails and passes, with valuable hints and directions to the traveler down the Yukon concerning the canyon and the dangerous White Horse Rapids. Besides the rock formations of the Fortymile and the Birch Creek series, the original deposits, or gold-bearing quartz veins, are broadly discussed and the probable extent of the gold deposits is indicated. Similar consideration is given to the detrital, or gold-bearing placer gravels, and to the mode of concentration of the coarse gold, its nature, and the manner of its extraction. Valuable metals other than gold, as platinum and copper, are also touched upon. The deposits of coal and lignite are mentioned somewhat fully. They occur mostly in the coastal regions and on the Lower Yukon, though good coal is also found in the Fortymile district, as on Coal Creek. Similar deposits have also been reported on the headwaters of the Stewart River, just above the Klondike.

It is expected that the Dictionary of Philosophy edited by Professor J. Mark Baldwin, of Princeton University, and published by The Macmillan Company, will appear early in 1899. The staff of the Dictionary, as now organized, is as follows. Consulting Editors:

*English*: Professors H. Sidgwick, Andrew Seth and William James; *German*: Professors Windelband, Ziehen, Exner, Münsterberg; *French*: Professors Pierre Janet, L. Marillier, Th. Flournoy and Yves Delage.

Writers in charge of departments, as follows: *Philosophy*: Professors Josiah Royce, Andrew Seth and John Dewey; *Logic*: Professor Adamson; *Ethics*: Professors Sorley and James Seth; *Psychology*: Mr. Stout, Professors Cattell, Titchener and Baldwin; *Philology*: Professor Wheeler; *Physical Science and Mathematics*: Professors Simon Newcomb and H. B. Fine; *Mental Pathology and Anthropology*: Professor Jastrow; *Biology*: Professors C. Lloyd Morgan and Minot; *Physiology*: Professor Hodge; *Economics*: Professor Hadley; *Political and Social Philosophy*: Professor Montague, Dr. James Bonar, Professor Giddings; *Jurisprudence and Law*: Judge S. E. Baldwin;

*Philosophy of Religion*: Professors A. T. Ormond and R. M. Wenley; *Education*: President De Garmo; *Æsthetics*: Professors Tufts and James Angell; *Neurology*: President C. L. Herrick, Dr. C. J. Herrick; *Bibliography*: Dr. Benj. Rand, Professor H. C. Warren; *Biography*: Professor G. A. Tawney; *Editor's Assistants*: Professor G. A. Tawney, Dr. W. M. Urban.

WE learn from *Cosmos* that the railway to the summit of the Jungfrau is being carried forward in spite of the cold weather. One of the mountain streams has been utilized, giving 2,400 h. p. which is used to drive by electric motors the drills excavating the tunnel, which has been carried a distance of eighty meters.

THE Bulletin of the Iron and Steel Association has made public the figures for the consumption of pig iron in the United States and its production since 1889 and including 1896, thus:

Actual production.		Estimated consumption.
Years.	Gross tons.	Gross tons.
1889.....	7,603,642	7,755,093
1890.....	9,202,703	8,943,338
1891.....	8,279,870	8,366,728
1892.....	9,157,000	9,303,315
1893.....	7,124,502	6,982,607
1894.....	6,657,388	6,694,478
1895.....	9,446,308	9,628,572
1896.....	8,623,127	8,275,774

It is a little too soon to estimate fully our consumption of pig iron in 1897, the import and export statistics of pig iron for the whole year not being as yet available, but a very close approximation to actual results is possible. We produced in that year 9,652,680 gross tons and imported say 18,000 tons. The imports in the first eleven months were 16,327 tons. At the beginning of the year there was on the market 847,686 tons of pig iron. The total supply for the year was, therefore, approximately, 10,518,366 tons. Of this total supply we exported about 260,000 tons. The actual exports in the first eleven months were 236,502 tons. There were on the market at the close of the year 874,978 tons. Deducting these two items from the total supply we have 9,383,888 tons as the approximate consumption of the year. This quantity is about 245,000 tons less than the consumption of 1895, and not very much in excess of the consumption of 1892. For the per

capita consumption we have, as the 'index of civilization,' about 250 pounds per annum, which we think is unexcelled by the consumption of any other nation.

THE French Automobile Club will hold an international motor-car and carriage exhibition, in Paris, June 13th to July 3d, inclusive; and the regulations have just been issued. The exhibition is to be divided into the following seven sections: (1) motor cars and motor cycles, (2) motors, (3) tyres, (4) carriage work for motor-vehicles, (5) motor-car parts, fittings and accessories, (6) tools, etc., for motor-vehicle builders, (7) motor-car literature. Intending exhibitors may apply to Messrs. Thevin & Houry, Bureau de l'Exposition, 4 Place de l'Opera, Paris. Space is already announced to be limited and early application only can insure assignment.

THE Committee on Medical Expert Testimony, of the New York Academy of Medicine, has stated, in reporting progress, that it had been determined that improvement in the system of expert medical testimony must proceed along three lines, viz.: (1) the establishment of some standard of excellence for experts; (2) the appointment of the experts for given cases by the presiding judge, and (3) the fixing of the fees by the Court and the deposit of a certain portion of the sum in advance. It was recommended that those registering as experts before the Board of Regents should be required to specify the particular branch of medicine; that they should have been in practice ten years, and in the practice of their specialty for five years; that evidence of special study should be presented, together with a certificate of good moral character, and indorsements by the local county medical organization and a judge of a court of record.

WE learn from the *Lancet* that the annual meeting of the Royal Zoological Society of Ireland took place on January 25th, at the Royal College of Physicians, at Dublin. The report of the Council showed that the popularity of the the gardens, as a place of resort, was increasing, as proved by the rise in the gate receipts. In February, 1897, a deputation waited on Mr. Hanbury, at the Treasury, for the purpose of

pressing the claims of the Society to a grant, it being over ten years since the Science and Art Department had conferred on it the sum of £3,000, long since expended in the erection of buildings and in improvements in the gardens. In last March the Aquarium House was formally reopened by Her Excellency, the Countess Cadogan. The committee, headed by Dr. Samuel Gordon and Lord Powerscourt, having for its object the erection of a memorial building to bear the name of the former Honorable Secretary of the Society, the late Dr. Samuel Houghton, has received much public sympathy and support.

#### UNIVERSITY AND EDUCATIONAL NEWS.

MR. JOSEPH F. LOUBAT has given to Columbia University property valued at \$1,000,000, subject to a life annuity of \$60,000. This great sum is for the support of the library, and is to be named the 'Gaillard-Loubat Library Endowment Fund.'

THE bill has been presented in the Maryland House of Delegates appropriating \$100,000 to the Johns Hopkins University. President Gilman has made a statement in which he explains how the income of the University has been decreased by the failure of the Baltimore & Ohio Railroad; in 1896-97 the income exclusive of the medical school and certain gifts given for special purposes was:

From investments.....	\$50,796 44
Tuition .....	47,512 09
Relief fund of 1896.....	57,424 01
Rents .....	21,432 22
Total .....	\$177,164 76

Expenses of the University were \$191,156. The buildings, land and equipment of the University are valued at slightly over a \$1,000,000.

THE Board of Trustees of Lafayette College have decided to rebuild Pardee Hall, the building containing the scientific departments, recently destroyed by fire, and to erect a chemical laboratory at a cost of \$25,000. Towards the cost of this building \$10,000 was subscribed at the meeting.

DR. E. D. PEARSONS, of Chicago, has donated \$25,000 to Pomona College, Pomona, Cal., which will be used by the trustees for the erection of a new science building.

THE Jefferson Medical College, Philadelphia, has received, by the will of the late C. D. Shain, \$7,000 for scholarships and prizes.

THE annual report of the Board of Regents of the University of the State of New York states that the colleges and professional and technical schools of the State in seven years have increased their expenditures from \$2,733,860 to \$5,771,325; the value of buildings and grounds, from \$15,129,028 to \$28,447,974; the libraries and apparatus, from \$1,896,959 to \$3,542,456, and the total property owned, from \$39,045,604 to \$77,148,944.

THE London University Commission Bill was introduced into the House of Lords by the Lord President of the Council on February 21st. It is identical with the bill of 1897, except that the names of the commissioners are not included.

THE Austrian government has compromised with the rioting university students by suspending the lectures for the balance of the semester, but permitting them to count the time as spent in residence. At the commencement of the summer semester on March 21st all students will be required to renew their pledge to observe the academic regulations.

PROFESSOR RUSSELL H. CHITTENDEN, without resigning his professorship in Yale University, has accepted the directorship of the department of physiological chemistry in Columbia University. Dr. W. J. Gies has been appointed instructor and Messrs. A. H. Redland and H. E. McDermott have been appointed assistants in the department.

PRESIDENT A. S. DRAPER, of the University of Illinois, has been offered the superintendentship of schools of New York City.

PROFESSOR LUIGI LOMBARDI has been appointed professor of technical physics at the Industrial Museum of Turin, in the room of the late Professor Galileo Ferraris.

#### DISCUSSION AND CORRESPONDENCE.

##### MUSCULAR DISTURBANCES IN MONOCULAR VISION.

IN a recent number of SCIENCE (February 25 1898) Mr. Charles H. Judd recounts some in-