

SCIENTIFIC NOTES AND NEWS.

THE British Association will meet next year at Glasgow, beginning on September 11th under the presidency of Professor A. W. Rücker. In 1902 the meeting will be at Belfast.

WE regret to learn that up to the present time, but 30 complete subscriptions have been received in the United States for the International Catalogue of Scientific Literature. The successful beginning of the project is dependent upon at least 45 subscriptions from the United States, and it is necessary that these should all be in before the end of September. The Catalogue will comprise 17 volumes per annum, the subscription per annum is \$85, and, in order to give the undertaking some sort of permanence, it is desired that these subscriptions shall be for five years. All subscriptions from the United States should be addressed to the Secretary of the Smithsonian Institution, Washington, D. C.

PROFESSOR H. T. TODD, having reached the age limit, has retired from the directorship of the Nautical Almanac. Professor S. J. Brown, astronomical director of the U. S. Naval Observatory, has undertaken the duties of the office.

Popular Astronomy quotes from the 'Navy Register' of 1900 the rank of all the mathematical officers in the navy on January 1, 1900. They are as follows: On the active list 'Rank of Captain': Professors Hendrickson, Todd and Oliver. 'Rank of Commander': Professors Brown, Rawson, Alger and Dodge. 'Rank of Lieutenant': Professors Paul, Skinner, See and Updegraff. On the retired list: 'Rank of Rear Admiral': William Harkness. 'Rank of Captain': Professors Newcomb, Hall and Eastman. 'Rank of Commander': Professors Frisby, Prudhomme and Rice.

PROFESSOR BALDWIN SPENCER has been given leave of absence from Melbourne University to study the ethnology of the natives of the northern part of South Australia.

M. FAYE, the eminent French astronomer, has been elected a foreign member of the Reale Accademia dei Lincei of Rome.

PROFESSOR E. A. SCHÄFFER has retired from the position of General Secretary of the British

Association which he has held in conjunction with Sir William Roberts-Austin. Dr. D. H. Scott has been elected to the vacant place.

DR. J. M. DA COSTA, formerly professor of the theory and practice of medicine at the Jefferson Medical College, died near Philadelphia on September 11th. He was perhaps the most prominent physician in Philadelphia, and was the author of numerous contributions to pathology, his work on 'Medical Diagnosis' having passed through numerous editions and having been translated into several foreign languages.

MR. WM. SAUNDERS, the well-known horticulturist, died at Washington, on September 11th, in his 78th year. He had been connected with the U. S. Department of Agriculture since its organization in 1862. He was well-known as a landscape gardener, having planned Fairmount Park in Philadelphia, and done much similar work at Washington and elsewhere.

WE learn from *Popular Astronomy* of the death of Mr. David Flannery, of Memphis, Tenn. He was interested in astronomy and had made observations of variable stars.

ACCORDING to *Popular Astronomy* the will of Professor Piazzi Smyth makes provision for the publication of his spectroscopic manuscripts, and also for the assistance or promotion every ten or twenty years of an exceptional expedition for the study of some particular branch of astronomical spectroscopy at mountain elevations of not less than 6000 feet.

THE will of Mr. Charles H. Smith of Providence contains the following public bequests: \$3000 to the Rhode Island Historical Society, \$2000 to the Rhode Island Horticultural Society, \$1000 to the city public schools for the purchase of microscopes, \$3500 to Brown University, and real estate valued at upwards of \$200,000 for the maintenance of the botanical specimens in the city park.

THOSE who have seen reference made to a forthcoming bulletin on the fishes of Porto Rico, to be issued by the U. S. Fish Commission, may not know that the publication has been delayed by a fire in New York, in which the drawings in black and white and such plates as had been engraved were destroyed.

The fine colored plates, however, being in the hands of another firm, were uninjured. Other drawings have been made to take the place of the more important of those destroyed and the work will be issued as soon as possible.

At the recent meeting of the British Association a committee was appointed to consider the following resolutions: "That in view of the opportunities of ethnographical inquiry which will be presented by the Indian census, the council of the Association be requested to urge the Government of India to make use of the census officers for the purposes enumerated below, and to place photographers at the service of the census officers: (1) to establish a survey of the jungle races, Bhils, Gonds, and other tribes of the central mountain districts; (2) to establish a further survey of the Naga, Kuki, and other cognate races of the Assam and Burmese frontiers; (3) to collect further information about the vagrant and criminal tribes, Haburas, Beriyas, Sansiyas, etc., in North and Central India; (4) to collect physical measurements, particularly of the various Dravidian tribes, in order to determine their origin; and of the Rajputs and Jats of Rajputana and the Eastern Punjab, to determine their relation with the Yu-echi and other Indo-Scythian races; (5) to furnish a series of photographs of typical specimens in the various races, of views of archaic industries, and of other facts interesting to ethnologists."

THE great meteor of August 25th is reported to have fallen near Rangeley Lake, Me., exploding within a few feet of the hotel and disappearing, not a fragment having been discovered by a prolonged search.

THE question of admitting women as members of the general and sectional committees of the British Association was brought up at the recent meeting and carried by a considerable majority.

WE are glad to note articles in the *New York Evening Post* and the *Boston Evening Transcript* urging the importance of a bureau of standards. The item establishing the bureau submitted by Secretary Gage was generally favored by members of Congress and would doubtless have been passed had it not been for the wish to prevent

a further increase in expenditures. If the measure is adequately discussed there is every reason to believe that it will be passed next winter.

A MEETING of Government officials and meteorological and agricultural authorities is soon to take place at Hamburg, to discuss the introduction of a telegraphic service for German agriculture.

THE *Windward* was expected to reach St. Johns at about the middle of the present month, but a short delay will not be surprising as it started late, owing to some difficulty with the machinery, and was subsequently delayed by ice along the coast of Labrador. The arrival of the steamship is awaited with interest and some anxiety as it will bring news not only of the return of Peary, but also of Captain Sverdrup and Dr. Stein. The former has the *Fram* provisioned for five years, with a crew of twelve men. He planned to round the northern boundary of Greenland and to make his way down its unknown east coast to Cape Bismarck. It is said that the expedition under Dr. Robert Stein of the U. S. Geological Survey, who is accompanied by Mr. Leopold Kann of Cornell University and Mr. Samuel Warmbath of Harvard University was poorly equipped and left in a dangerous position. Lieutenant Peary himself expected to establish his last depôt at Cape Hecla, the most northerly point of Grinnell Land just beyond the 82d parallel, whence he intended to advance with Eskimo and sleds as far north as possible.

It is reported in the daily papers that Captain Bernier, who has lately returned to Quebec from Newfoundland, states that when there he examined all the vessels engaged in the whaling business to select one for his proposed North Pole expedition. He says that none were considered by him strong enough to resist the pressure of the Polar ice. He has, therefore, proposed that the Canadian government build a suitable vessel out of the grant that has been promised. Captain Bernier says that his offers of assistance, exclusive of the government grant, now aggregate \$25,000, and that the merchants of Quebec will donate supplies worth \$6000 or \$7000.

NEWS has been received from the Liverpool

Expedition sent to Nigeria to the effect that all the members are perfectly well, although they have spent four months in districts where malaria is specially prevalent and deadly. They have not kept the fever off by the use of quinine, and they attribute their immunity to the careful use of mosquito nets at night. Experiments are reported in the *Archivio per le Scienze Mediche*, abstracted in the *New York Medical Record*, of an experiment carried out by Eugenio di Mattei on himself and four others. A hut situated in an extremely malarial region, infested by mosquitoes, was chosen, and here the five slept for thirty-two nights. Their work during the day was arduous, their food scanty, their accommodations were uncomfortable; they took no quinine or other medicament, but their hut was so completely protected by wire gauze that no mosquitoes were able to obtain access. No one of the five contracted malaria, although other workmen sleeping in the neighborhood and unprotected from the mosquitoes, suffered from grave forms of the disease.

In 1898 there was mined in the United States somewhat over nineteen million tons of iron ore, which was the largest quantity up to that time ever produced in a single country in a single year. But according to the announcement recently made by the U. S. Geological Survey, the production of iron ore in the United States was 24,683,173 tons, an increase of 27 per cent. over 1898. In spite of this large increase the price is about 25 per cent. higher than in 1898.

DR. REGINALD A. FESSENDEN writes as follows to the *Electrical World* referring to patents by Mr. Tesla which have been widely discussed in the daily press: "With reference to your article on 'Insulation by Freezing,' in the issue of August 25th, may I be permitted to point out that the patents referred to are invalid, as this method was fully described in my paper on 'Insulation and Conduction,' read before the American Institute of Electrical Engineers in 1898, and printed in its 'Transactions' (Trans. A. I. E. E., 1898, page 14). The passage is as follows: 'The second (plan) occurred to the writer on reading Elihu Thompson's article on the use of liquid air as an insulator. It is this:

Since ice at only 12 degrees below freezing has a specific resistance of over 1000 megohms, *i. e.*, as good as some brands of insulation, why not make the conductors hollow, lay them in a trench filled with water, pass cold brine through the pipes, use the brine for cooling houses, making ice, etc., and let the frozen water act as the insulator. A rough calculation shows that this is commercially feasible, even neglecting all sources of profit from the furnishing of the brine, *i. e.*, if it were used only for cooling the pipes. After making all allowance for friction of fluid, cost of power, etc., the balance comes at the right end, if the line is always fully loaded." This was published more than two years prior to the date of application of said patents, the said date being June 15, 1900.

THE report of the Principal Chemist of the Government Laboratory of Great Britain upon the work of the laboratory for the year ended March 31st last has been issued as a Parliamentary paper. According to an abstract in the *London Times* it appears that in the Customs Department during the past year, 226 samples of tea, representing 3322 packages, were found to contain exhausted leaves, or to be mixed with sand or other substances within the meaning of the Act, and were therefore refused admission for home consumption. Of these 3322 packages, 2274 were exported and 1048 destroyed. Eight thousand four hundred and eighteen samples of tobacco, tea, coffee, soaps, drugs, varnishes, etc., were examined during the 12 months; 167,080 samples of beer, spirits and wines were examined in the same period. The number of analyses and examinations made in the Excise branch amounted to 68,287, or 1864 more than in the preceding year. Seven thousand five hundred and two samples of wort in various stages of fermentation had been examined to check the declaration of gravity made by the brewer. In 614, or rather more than 8 per cent. of these cases, the original gravity was found one degree or more above that declared by the trader or found by the officer. In 583 cases the increased gravity was less than five degrees, in 26 cases five degrees and less than ten, and in five cases ten degrees and upwards. Two thousand three hundred and eighty-six

samples of finished beer taken from 1223 publicans were analyzed, and 319 or 13 per cent. of the samples were found to have been diluted with water or otherwise adulterated. Ninety-five samples of tobacco taken from manufacturers and dealers were analyzed for adulteration generally, and 20 of them were found to be adulterated with liquorice or glycerine. All the adulterated samples were apparently either smuggled cake cavendish or cut tobacco, which bore no label to show it had paid the proper rate of duty. While in 1841, when the population was 26,700,000, the quantity of tobacco cleared for consumption was 23,096,281 lb., or 13 $\frac{3}{4}$ oz. per head of the population, the quantity in 1900, with a population of 40,835,000, was 80,955,037 lb., or 1lb. 15 $\frac{3}{4}$ oz., per head. In the 'other Government Department's' branch the number of samples examined in connection with the Board of Agriculture had increased from 1600 in the year ended March 31, 1899, to 1745 during the last year. The increase was due partly to the new Food and Drugs Act. One thousand three hundred and ninety-three samples of imported butter were examined. Only six samples gave distinctly abnormal results. A large number of butters contained boric preservative and were artificially colored. As usual, it was found that the use of boric acid is most prevalent in France, Belgium, and Australia, and is very common also in Holland. The most frequent coloring-matter is annatto, but the use of coal-tar yellows appears to be on the increase, and is especially prevalent in Holland, the United States and Australia. One hundred and thirty-two samples of imported margarine were analyzed. The bulk of the margarine imported comes from Holland, and it is usually made with cottonseed oil, contains boric preservative, and is artificially colored with a coal-tar yellow. In all 1745 samples of butters, margarines, cheese, etc., were examined.

UNIVERSITY AND EDUCATIONAL NEWS.

MR. SAMUEL MATHER, of Cleveland, has offered to give Kenyon College at Gambier, Ohio, \$10,000 for every \$15,000 secured from other sources. This has resulted in a gift of \$15,000 from Mr. J. P. Stevens for a library fund.

WITH the opening of the scholastic year this month the Christian Brothers in their colleges in the United States enter upon the new order prescribed for them by their superiors in France, who have decided that hereafter modern languages shall replace the classics. Manhattan College, New York, and others of the best Catholic Colleges giving the B.A. degree must follow these directions, though it is said that they may cause a division in the Order.

THE Congress of British Chambers of Paris' which met at Paris this month adopted the following resolution: "That this meeting endorses the following resolution, which was adopted at the Congress of Chambers of Commerce of the Empire in June, 1900: 'That it is most desirable to take steps to urge the extension of technical and commercial education throughout the Empire, and that wherever possible this education should be placed under efficient public control; and that this Congress is of opinion that the utmost effort should be made throughout the Empire to encourage and furnish facilities for commercial education as a branch of technical and scientific study, and that the Home and Colonial Governments be moved to give aid thereto and ample powers of contribution out of local resources; and, further, it is very desirable that Chambers of Commerce should be represented on Boards of Education in order to advance the interests of commercial education.'"

DR. OUSTALET, assistant in the Paris Natural History Museum, has been made professor of zoology (mammals and birds) in the Museum in succession to the late M. Milne-Edwards.

PROFESSOR CRAIG of the Ames Agricultural College and formerly horticulturist of the Dominion Experiment Farm at Ottawa has been called to Cornell University for work in horticulture.

PROFESSOR WENDELL PADDOCK of the Geneva Experiment Station has been elected professor of horticulture in the Colorado Agricultural College.

PROFESSOR PERCY J. PARROT of the Kansas Agricultural College has been appointed entomologist at the Geneva Experiment Station.