

present his statistics in scientific form. What nonsense to talk of the laws of decreased natality as 'a penalty inflicted for the sin of the people' (p. 32)! Or to attribute the greater fecundity of our foreign-born population to 'the watchful protection of the Roman Catholic Church' (p. 25), in face of the facts that a large percentage of the foreign-born are not Catholics, and in France, where 95 per cent. of the population are Catholic, the decrease of natality is more striking than in any other country! The topic must be studied in a very different spirit from this in order to reach results worth anything.

#### MEXICAN FLUTES.

A CONTRIBUTION by Professor Kollmann, of Basel, to the Bastian *Festschrift* should be mentioned, though it is a little late to refer to it.

The subject is a portion of the collection of Mexican antiquities brought to Basel about 1837 by Lucas Vischer. It includes a number of flutes and whistling jars of pottery, not materially unlike quantities of others in various museums. Professor Kollmann describes and figures them, speaks of their employment in religious and other ceremonies, and speculates as to their origin, seemingly leaning toward an 'Asiatic' suggestion. He is in error in supposing the flute was confined to the aborigines of Mexico and Central America. It was known to the Indians of Florida and elsewhere.

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#### SCIENTIFIC NOTES AND NEWS.

##### THE MARYLAND GEOLOGICAL SURVEY.

WE learn from an article in the Baltimore *Sun* that the work of the Maryland Geological Survey, which is being carried on under the direction of Professor William Bullock Clark, of the Johns Hopkins University, State Geologist, is being pushed with vigor in several sections of

the State. A large area will be thoroughly surveyed during the present summer. At the same time the results of the previous work are being rapidly brought together for publication, and the second volume of the Survey Reports, much elaborated over earlier plans, will shortly appear.

The topographic work which is being carried on under an act of the last Legislature, in cooperation with the United States Geological Survey is making rapid strides in the mountainous portions of western Maryland and Garrett and Alleghany counties, and will be completed before the close of the field season. The geological work proper is being carried on at the present time in sections of western, southern and northern Maryland. A party of several geologists, under the direction of Dr. G. B. Shattuck, is studying the later Tertiary formations, with their marls, clays and gravels, in the southern counties, while associated with them during most of the season has been Dr. R. M. Bagg in a study of the earlier Tertiary of Anne Arundel and Prince George's counties. Mr. A. Bibbins is engaged in the study of the clays and iron carbonate deposits of the older coastal plain formations in Cecil and Harford counties, and their extension beyond the limit of the State.

The geology of the Piedmont belt is under the direction of Dr. E. B. Mathews, who has had associated with him in the study of the distribution of the basic eruptive rocks in the northern counties, especially Cecil, Harford and Baltimore, Dr. A. G. Leonard, who will spend the summer in tracing the distribution of these rocks across the State.

The geology of western Maryland, which is under the charge of Dr. Charles S. Prosser, is being investigated by him and Messrs. O'Harra, McLaughlin and Rowe, who have already nearly completed their work in this district. The magnetic survey of the State is being carried on under the direction of Dr. L. A. Bauer.

The new highway division of the Survey established by an act of the last Legislature is under the charge of Dr. H. F. Reid, who has associated with him Mr. A. N. Johnson as highway expert. These gentlemen, in conjunction with Professor Clark, have visited various sec-

tions of the State in the interest of investigation.

The State Geological Survey, in cooperation with the United States Department of Agriculture and State Experiment Station, has been making a special study of the distribution of soil types while the geological survey has been in progress. Mr. C. W. Dorsey has been in charge of this phase of the work. The connection between the soils and the indigenous plant life is readily apparent, and the Survey is paying some attention to the distribution of the flora of the State. Messrs. B. W. Barton and Basil Sollers are devoting a portion of the summer to this study.

#### GENERAL.

PROFESSOR J. R. EASTMAN, of the United States Naval Observatory, was retired from active service on July 29th. Professor Eastman has been continuously connected with the Observatory since 1862.

THE University of Edinburgh has conferred its honorary LL.D. on several of those who attended the recent meeting of the British Medical Association, including Professor H. P. Bowditch, of Harvard University, and Professor Wm. Osler, of Johns Hopkins University.

PROFESSOR VIRCHOW, of Berlin, will deliver the next Huxley lecture at the Charing-cross Hospital, on Wednesday, October 3d. The subject of the lecture, to be delivered by Professor Virchow in English, is 'Recent Advances in Science and their Bearing on Medicine and Surgery.'

SIR WILLIAM MCCORMAC has been elected President of the Royal College of Surgeons of England for the third year; Mr. T. Pickering Pick and Mr. Howard Marsh have been elected Vice-Presidents for the ensuing collegiate year.

THE British Order of the Bath has been conferred on Professor D'Arcy W. Thompson.

DR. P. KUCKUCK has been appointed custodian for botany at the Heligoland Biological Institute.

DR. WILLIAM PEPPER, of Philadelphia, died of heart disease in San Francisco on the night of July 28th. Dr. Pepper belonged to a prominent Philadelphia family and was born in that

city in 1843. He was connected with the University of Pennsylvania in many capacities from the time he entered as a student, being provost from 1881 until 1894, and at the time of his death professor of the theory and practice of medicine. Dr. Pepper was the author of many works on medical and other subjects, the most important of which was his 'System of Medicine by American Authors.' He also founded the *Philadelphia Medical Times*. Dr. Pepper was prominent in many of the public institutions of Philadelphia, and to his initiative, ability and untiring energy the recent scientific, educational and medical progress of the city is in great measure due. From a medical school and an unimportant college, the University of Pennsylvania under his administration developed into a great university. He was largely or chiefly instrumental in founding the University Hospital, the Pennsylvania Museum and School of Industrial Art and other institutions. He was, at the time of his death, Vice-President and the real executive of the American Philosophical Society and President of the Philadelphia Museums.

THE French Society of Hygiene will award next year fifteen prizes for the best essays on the means of improving the condition of crews of fishing boats. The essays are to be sent in before January 1st to M. M. E. Cacheux, 25, Quai Saint Michel.

WE learn from the *British Medical Journal* that the Instituto Veneto di Lettere, Scienze ed Arti has awarded the three Balbi-Valier prizes, which are of the value of £120 each, respectively, to Senator Durante, professor of surgery in the University of Rome, for his treatise on General Special Surgical Pathology and Treatment; to Professor Bosehetti for his work on 'Tremulotherapy;' and to Professor Emilio Cavazzani, lecturer on physiology and pharmacology in the University of Ferrara, for his researches on the Thermogenesis, Glycogenesis and Circulation of the Foetus.

THE fund collected by international subscriptions for memorials to Sir John Pender has now been closed. The marble bust of Sir John Pender by Mr. E. Onslow Ford, to be placed temporarily in the Board room of the Eastern Tele-

graph Company, and the replica for University College, London, required a comparatively small part of the fund. £5,000 were devoted to endowing the Pender Electric Laboratory of University College, £1,650 for endowing scholarships in Glasgow University, and £210 for the John Pender Gold Medal of the Glasgow and West of Scotland Technical College.

THE Société Française d'Hygiène invites subscriptions for the erection of a memorial bust of the late Dr. Prosper de Pietra Santa, who was the founder and Permanent Secretary of the Society and editor of the *Journal de Hygiène*.

THE report of the Council of the British Medical Association shows that the number of members is 17,746, an increase of 791 since last year. The number of new members, 1,473, is the largest recorded in any one year since the Association was founded. The revenue of the past year amounted to £40,433. The Association has purchased during the year, for £79,000, the freehold of the property on the Strand which they have held on lease. The sum of £366 has been allotted for scientific grants and £450 for scientific scholarships. A scholarship has been founded as a memorial of the late Mr. Ernest Hart, to be called 'The Ernest Hart Memorial Scholarship for Preventive Medicine.' The scholarship, which will be of the annual value of £200, will be tenable for two years. Mr. Hart, it will be remembered, was the editor of the *British Medical Journal*, the organ of the Association.

THE annual meetings of the British Society of Chemical Industry were commenced at University College, Nottingham, on July 13th. The President, Professor Clowes, made an address, and the medal of the Society was awarded to Dr. W. H. Perkin, who in 1856 discovered aniline purple, a discovery which laid the foundation of the extensive coal-tar industry of the present time. The Society has now 3,196 members and its income last year was £4,738.

THE Latin-American Scientific Congress will next meet in 1901 at Montevideo.

THE *Revue Scientifique* has published a preliminary list of papers, some sixty in number, to be presented at the approaching meeting of the French Association for the Advancement of

Science, which will be held at Nantes from the 4th to the 11th of August. Many of the papers are of interest, although the most prominent French men of science do not seem to attend the meetings of the Association.

MR. EDWARD DODSON, of the Natural History Museum, London, has left England to join Mr. H. S. Cavendish, the African explorer, who is now at Beira.

DR. E. LEWIS STURTEVANT, widely known as an expert on scientific agriculture, in which capacity he was connected with the United States government for many years, died at Framingham, Mass., on July 30th, aged fifty-six years.

PROFESSOR JOHN CAIRD, the well-known writer on philosophical subjects, died on July 30th, aged seventy-eight years. His resignation from the principalship of the University of Glasgow was to have taken effect on August 1st.

DR. BEATTIE CROZIER'S Civil List pension of £50 has been increased to £100 in order to enable him to complete his 'History of Intellectual Development on the Lines of Modern Evolution,' the first volume of which appeared in 1897.

*Nature* states that the French Société d'Encouragement has awarded the grand prize of 12,000 francs to M. Moissan for his numerous researches in chemistry; the prize of 2,000 francs for the experimental study of the properties of metals and alloys to M. C. E. Guillaume; the prize of 1,000 francs for an investigation of albuminoids to M. Fleurent; a prize of 2,000 francs to M. Cord for his work on the agriculture and geology of the soils in the department of Lozère; an *encouragement* of 500 francs to M. Capredon for his work on metallurgical chemistry; of 500 francs to M. A. Bigot for his work on enamels; of 1,000 francs to M. Pagès for his work on the agriculture of the Cantal Department; and 500 francs to M. Mazel for his work on the agriculture of the Vivarais district.

WE learn from the London *Times* that news has been received at Cambridge of the arrival of the Cambridge Anthropological Expedition to Torres Straits at Murray Island. The expedition reached Thursday Island on April 23d.

The Hon. John Douglas, C.M.G., the Government Resident, did all in his power, personally and officially, to advance the aims of the expedition, as did also the other government officials and many others. The Hon. J. G. Byrnes, Chief Secretary, sent a cordial telegram of welcome and promise of assistance from Brisbane, on behalf of the government. After a week's delay a start was made for Murray Island in two open luggers, and owing to the unfavorable weather it took another week to traverse the 120 miles between the two islands. All the party suffered considerably from heat and exposure in the open boats. The Murray Islanders gave Dr. Haddon a very hearty welcome, bringing gifts of cocoanuts and bananas as expressions of good will. They appeared to understand the main objects of the expedition. A deserted mission house, in which Dr. Haddon stayed ten years ago, was occupied as a dwelling house, and had also been converted into a temporary anthropological and psychological laboratory, photographic studio, surgery and dispensary. All the members of the expedition were in good health, and work has begun in earnest.

SIR MARTIN CONWAY has left England for Bolivia, where he intends to explore the high group of the Andes containing the peaks Illimani and Illampu. He is accompanied by the Alpine guides Antoine Mauquignaz and Louis Pellissier, who made the first ascent of Mount St. Elias, in Alaska, last year with the Duke of the Abruzzi.

At a meeting of the Zoological Society of London, on June 11th, the Secretary read a report on the additions that had been made to the Society's menagerie during the month of May, 1898, and called special attention to a young female Mountain Zebra (*Equus zebra*) and a young male Leucoryx Antelope, acquired by purchase; a young male Reindeer (*Rangifer tarandus*), presented by the Hon. M. A. Bourke; and two Black-necked Swans (*Cygnus nigricollis*), hatched in the Gardens.

It is expected that the new laboratory building of the Johns Hopkins University Medical School, adjacent to the hospital, will be ready for occupation in the autumn. It will accom-

modate the laboratories of physiology, of physiological chemistry and of pharmacology.

AN Institute of Hygiene has been opened in Buenos Ayres. The Director of the Institute is Dr. Ferruccio Mercanti.

THE buildings of the United States Fish Commission at Woods Holl were examined with a view to using them for an army hospital. Fortunately, the buildings were found unsatisfactory for this purpose, as otherwise the important work now in progress under the Fish Commission, as well as that of the Marine Biological Laboratory, would have been completely stopped for the year.

It will be remembered that the sum of \$650,000 has been appropriated by the United States government for the representation of the country at the Paris Exposition. Mr. Ferdinand Peck, the newly appointed Commissioner, has had a conference with the President, and it is said that the latter will recommend an appropriation of \$400,000 additional.

A LARGE part of the session of the British House of Commons on July 19th was devoted to the consideration of the vaccination bill founded by the government upon the recommendation of the Royal Commission. Much opposition was shown to the bill, and Mr. Balfour, on behalf of the government, appeared to favor its modification in the sense that vaccination would not be required if a parent stated that he believed it to be prejudicial to the health of his child.

THE great activity among students of our Southeastern flora has become a subject of common remark. The results of this work have been appearing in numerous articles in the botanical journals from Messrs. Small, Nash, Bicknell, Beadle, Kearney, Underwood, Earle, Pollard, Ashe and others. Much of this published work has been the result of personal investigations in the field, which speaks well for the great botanical interest attached to this flora. Several separate works on the subject have been prepared or are in course of preparation. The 'List of Alabama Fungi' by Messrs. Earle and Underwood was published by the Alabama Polytechnic Institute. Dr. Mohr's monumental work on Alabama plants will soon appear as a

government publication. We understand Dr. Small has in progress a Botany of the South-eastern United States. A new edition of Chapman's Manual has lately appeared. Outside of Curtis's well known series of Florida plants but few distributions of the plants of this region have been made, though there has been great demand for them among botanists throughout the world. One of the important functions of the lately organized Alabama Biological Survey is the collection and distribution of the plants of all orders occurring in Alabama. This work prosecuted under the auspices of the Alabama Polytechnic Institute, at Auburn, and carried on for a year and a-half without supporting funds from official sources, has already resulted in the formation of a reference herbarium of about 10,000 sheets, and an exchange herbarium of about an equal number. This exchange material contains fine series of many interesting species, varieties and forms, and is at the service of the botanical world for sale or exchange.

As has already been announced, the autumn meeting of the Iron and Steel Institute will be held in Stockholm on Friday and Saturday, August 26th and 27th. We learn from *Nature* that an interesting and varied program has been prepared by the local committee, and seven papers have been promised, two being by Swedish metallurgists. Mr. Richard Ackerman, Director-General of the Swedish Board of Trade, an honorary member of the Institute and a Bessemer gold medallist, will read a paper on the development of the Swedish iron industry, whilst Professor G. Nordenström, of the School of Mines, Stockholm, will submit a communication on the most prominent and characteristic features of Swedish iron-ore mining. Mr. C. P. Sandberg will discuss the danger of using rails of too hard a nature, whilst Professor W. C. Roberts-Austen, C.B., F.R.S., will describe the action of explosives on the tubes of steel guns. The chemical side of metallurgy will be represented by three papers. The first will be by Mr. J. E. Stead, on brittleness in steel produced by annealing; the second by Professor J. O. Arnold, of University College, Sheffield, on the micro-chemistry of cementation; whilst the subject of the third paper will

be the influence of metalloids on cast iron, by Mr. Guy R. Johnson, of Tennessee, U. S. A. An excursion of twenty days' duration will follow the meeting.

THE following appeal, which should be regarded in America as well as in Great Britain, has been sent out by the committee of the Society for the Protection of Birds, London. "The committee of the Society for the Protection of Birds are convinced that the objects of the Society would be greatly helped if the assistance of landowners, shooting tenants and farmers could be obtained, as, unless united action be soon taken, many of the country's birds, especially the rare birds of prey, will shortly become extinct. This, most people agree, will be a matter of universal regret, as well as a great loss to the avifauna of the United Kingdom. It is only through the cooperation of gentlemen possessing shooting and other rights over land that it is possible to effect any real improvement in this direction; and their assistance would, in the opinion of this Society, be best given by their not allowing keepers and other persons on the land a free hand as to what birds may be killed, which is often the case at present, but, on the contrary, by giving strict instructions as to what birds only may be destroyed, which should properly be only those birds that, from their abundance in any particular district, may do real harm. The committee also desire to draw your attention to the use of the pole trap, which ought in no case to be allowed, because, even if a landowner wished to preserve rare birds of prey, this trap could show no such discrimination. It is, besides, a most cruel instrument, because, if it is not examined regularly, any bird caught in it may hang for days in misery, and on this account this trap has been prohibited on many estates. The Society would be greatly obliged if you would kindly give these matters your careful consideration, and, if possible, give instructions in the manner indicated, or in any other way that may seem good to you. In order that there should be no misapprehension as to the objects of the Society the following extract from the rules is added: 'The attitude of the Society is strictly neutral on the question of the killing of game birds and legitimate sport of that character.' "