

the collective work of those who labour in the wide field of natural science, all most important advances in hygiene, being made by the researches of eminent specialists in natural science. Finally, Prof. Mendeleeff made the proposal to publish a new scientific periodical.

At the last public meeting of the Congress, Professors Sokhotsky and Kovalsky made a proposal to found a Russian Astronomical Society, and Prof. Tchebysheff proposed to solicit from the Government pecuniary help to the Moscow Mathematical Society; both proposals were agreed to. M. Severtsoff gave a very interesting lecture on the orographical structure of Central Asia and on its influence upon the geographical distribution of animals. Prof. Andreieff developed the idea as to the necessity of giving instruction in natural sciences in primary schools, and M. Gerd gave an address on the impulse which could be given to the study of nature in Russia, its flora, and fauna, by the teachers of the primary schools; he demonstrated by numerous facts that this help would be very effective, as a great number of teachers would be very glad to work on that field; therefore, he proposed to draw up good programmes for these studies, as well as simple manuals of the necessary elements of science. Both proposals were met with the warmest cheers of the numerous auditory, but we fear that they will meet, as have former proposals of that kind, with strong opposition from the actual Ministry of Public Instruction. After an address by Prof. Wagner, on the sociability of animals, the Congress closed its sittings; the next Congress to be held at Odessa.

In the Section of Astronomy and Mathematics we notice the following communications:—By Prof. Davidoff, on a new method for the exploration of functions, which method enables us to deduce various theorems from one general principle; by M. Preobrajensky, on the integration of Laplace's equation by means of quaternions, the communication having given rise to very animated discussion; and by M. Tchebysheff, on parallelograms, being a brilliant exposition of their importance in mechanics, together with a discussion of several points of theoretical importance. An interesting memoir was read by Prof. Bougaeff, on subtraction in the theory of numbers, which deals with several important philosophical points of mathematical investigation. Other communications were by MM. Markoff, Joukovsky, and Vasilieff, on Bernoulli's equation.

In the Section of Physics and Meteorology we notice the following communications:—By M. Ziloff, on the magnetisation of liquids; by M. Collin, on the luminous properties of electrodes; by Prof. Oettinger, on electricity; by M. Pantoukhoff, on the meteorology of Bulgaria as compared with South-Western Russia; by Dr. Woeikof, on the various causes of perturbations in the diurnal changes of temperature; and by Baron Wrangel, on changes of level in the Black Sea. This level has continuous fluctuations; it is always lower during the night, and reaches its maximum at mid-day in all sea-ports of the northern and the eastern coast; it is also at a minimum in October and a maximum in May, the difference between these two levels being 18 inches. The following communications of general interest were also made in the Section of Physics:—Dr. Woeikof exhibited a new map, showing the distribution of rainfall in all parts of the world; M. Borgmann made a communication on the influence of the inductive currents on the development of temperature during magnetisation; Prof. Lemström (Helsingfors) expounded his theory of terrestrial magnetism; Prof. Tchebysheff read a memoir on centrifugal regulators, and exhibited two of his invention; and M. Tchikoleff, on electric lighting.

In the Section of Geology and Mineralogy we notice communications by Prof. Lentz, on the level of the Amu-Darya; by Prof. Fr. Schmidt, on recent formations on the shores of the Gulf of Finland; and by M. Armatelsky, on diluvial formations in the Government of Chernigov.

In the Sections of Botany and Zoology we notice the communications by M. Tikhomiroff on the bacteria which cause disease of the bladder, and on the artificial production of these bacteria; by Prof. Ganin, on the development of fishes; and by M. Sidoroff, on the insects destroying corn in Russia.

A most interesting communication was made to the Section of Physiology by Prof. Setchenoff, on the absorption of oxygen and nitrogen by blood. Besides, we notice communications by Prof. Goloubeff, on the vibratile epithelium; by Dr. Tsiouboulsky, on a new method of determining the amount of blood in animals; by M. Wedensky, on the innervation of the respiratory motions of the *Rana temporaria*; and by Prof. Tarkhanoff, on the amount of blood of man.

In the Section of Anthropology were the following communications:—By Prof. Stid (Dorpat), on the relation between the indexes of the skull and that of the head; by Dr. Lubinsky on the sight, being the result of numerous observations upon the crews of the Russian navy, which observations establish a certain connection, difficult to explain, between the power of sight and the breadth of the chest. The communication by M. Dokouchaieff, on the pre-historic man of the downs of the Oka river, deals with a subject of great interest, as he affirms that the range of downs which we see along the whole of the course of that river must afford a great amount of pre-historic remains, as is the case with the downs of Volosovo and Lvinii, both having yielded thousands of such remains. Prof. Inostrantseff discussed at length the various sub-divisions of the stone period, and M. Anoutchin gave an interesting note on the frontal suture, which seems to appear most frequently in races of a higher degree of civilisation.

An interesting feature of these Russian congresses is the existence of two special sections, those of scientific medicine and of hygiene; the latter section has assumed a great importance, thanks to the energy of several eminent hygienists, as Drs. Erisman, Dobroslavine, Vyrouboff, and others. A question being raised about the hygiene of railways, the section of hygiene had two special sittings on this subject, and a committee was appointed to draw up a programme of investigations on the dress of railway employes, the number of hours of work, the sanitary state of railway stations, and of dwellings of employes, accidents, the transport of cattle, &c. A great number of other questions, as to the disinfection of dwellings, epidemics, &c., were discussed, and we hope that the work of the section will be of great importance for this kind of investigation.

Several other important communications were made in the Physical Society, and in the St. Petersburg Society of Naturalists, which both have had their annual meetings during the Congress.

#### UNIVERSITY AND EDUCATIONAL INTELLIGENCE

OXFORD.—On February 3 the question of the Natural Science Degree will again come on for discussion in congregation. Last term, it will be remembered, the proposal to grant a special natural science degree was defeated after a close division, the principal opposition to the motion coming from the scientific members of congregation. It was thought that a separate science degree, not carrying with it the privileges of the master of Arts Degree, would be regarded as an inferior degree, and tend to lower the position of science in the University. A clause is now proposed by an influential body of residents—including Prof. Odling, Dr. Mark Pattison, Rector of Lincoln, A. Vernon Harcourt, Prof. Green, Prof. Lawson, and Prof. Nettleship—to the following effect:—"Every person who shall have been admitted to the degree of Master of Natural Science, shall also be admitted to the degree of Master of Arts."

At the University Museum Prof. Clifton will continue his course on Static Electricity and Magnetism; Dr. Odling will continue his lectures on Organic Chemistry on Mondays and Fridays at noon, instead of on Mondays and Thursdays as heretofore. The examination for the Radcliffe Travelling Fellowship will begin in the Museum on Tuesday, February 10, at 10 A.M. Candidates are requested to send in their names to Dr. Acland, at the Museum, on or before February 1.

At Christ Church Mr. Vernon Harcourt will form a class and lecture on Quantitative Analysis; Mr. Baynes will lecture on Thermodynamics and Electrodynamics.

M. ROUGET, Professor of Physiology in the Faculty of Medicine at Montpellier, is nominated Professor of General Physiology in the Museum of Natural History of Paris, in succession to the late Claude Bernard.

#### SCIENTIFIC SERIALS

*Annalen der Physik und Chemie*, No. 12, 1879.—Analogies between fluidity and galvanic conductivity, by O. Grotrian.—On the magnetisation of iron rings, by A. v. Ettingshausen.—The ball-shaped electro-dynamometer, by J. Frohlich.—On gradual passage of the band-spectrum of nitrogen to a line-spectrum, by A. Willner.—On Stokes's law, by S. Lamansky.—On a bi-constant dispersion formula, by E. Lommel.—On the dichroitic fluorescence of magnesium-platinum-cyanide; experimental proof of