

Bering Sea are rapidly changing the conditions of native life ; so that within a few years their primitive customs, and perhaps the tribes themselves, will be extinct.

The expedition, after leaving Vladivostok, will go by sea to the northeastern part of the Sea of Okhotsk, where they will establish their winter quarters. Mr. Jochelson expects to spend the winter among the tribes of this coast, part of whom belong to the great Tungus family which inhabits the greater part of Siberia, while others belong to a little-known group of tribes inhabiting the extreme northeastern portion of Asia. Mr. Bogoras will make a long journey by dog-sledge across that part of the country which is north of the peninsula of Kamtchatka, and will spend much of his time among the Chukchee, whose mode of life is quite similar to that of the Eskimo of the Arctic coast of America. Mr. Bogoras is exceptionally well prepared for this work, since he has spent several years among the western Chukchee, who are a nomadic tribe, and subsist on the products of their large herds of reindeer. There is also a small tribe of Eskimo living on the Siberian coast, whom Mr. Bogoras expects to visit.

Mr. Jochelson, after finishing his work on the coast of the Okhotsk Sea, will proceed northwestward, crossing the high mountains which stretch along the coast, on a trail never before visited by white men. Over this route he expects to reach the territory of another isolated tribe, the Yukagheer. On a former expedition Mr. Jochelson visited a western branch of this tribe, whom he reached starting from Irkutsk, in southern Siberia. Owing to the difficulties of the passage, Mr. Jochelson will not return to the coast of the Okhotsk Sea, but will continue his journey westward through Asia, and reach New York by way of Moscow and St. Petersburg.

Both Mr. Jochelson and Mr. Bogoras have carried on a series of most remarkable investigations in Siberia, which are at present being published by the Imperial Academy of Sciences in St. Petersburg. The results of their previous investigations embrace a mass of information on the customs, languages, and folk-tales of the tribes whom they visited.

It may be expected that their journey, which will extend over a period of two years, will result in a series of most interesting additions to the collections of the Museum, and in an important advancement of our knowledge of the peoples of the world.

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#### SCIENTIFIC NOTES AND NEWS.

A MOVEMENT has begun in London to arrange for the erection of a memorial in honor of the late Sir William Flower.

THE Royal Society of Surgeons of England has elected, in connection with the celebration of its centenary, a number of honorary fellows, subject to their attendance at the celebration. These include Dr. I. H. Cameron, Toronto University ; Dr. William S. Halsted, Johns Hopkins University ; Sir W. H. Hingston, Laval University ; Dr. W. W. Keen, Jefferson Medical College ; Dr. T. G. Roddick, McGill University ; Dr. J. C. Warren, Harvard University, and Dr. R. F. Weir, Columbia University.

PROFESSOR CAMILLO GOLGI, eminent for his researches on the nervous system, has been made a senator of the kingdom of Italy.

PROFESSOR RUDOLF LIPCHITZ, professor of mathematics in the University at Bonn, has been elected a correspondent of the Paris Academy for the section of geometry.

SIR JOHN EVANS has been elected chairman of the Society of Arts, London.

MR. GRANT-OGILVIE, principal of the Heriot-Watt College, has been appointed director of the Museum of Science and Art, Edinburgh.

LORD KELVIN has been elected Master of the Worshipful Company of Clothworkers for the year 1900-1901.

THE steamship *Queen* which arrived at Victoria on August 4th from Alaska had among its passengers W. F. King, the British Alaskan Boundary Commissioner ; O. H. Tittman, the American member of the Commission, and O. B. French, assistant. They have concluded their work on White, Chilkoot and Chilkat passes.

DR. W. J. HOLLAND, of the Carnegie Museum, sailed for Europe on August 7th. He will be absent for four weeks.

MR. S. WARD LOPER, curator of the museum of Wesleyan University, has gone to Cape Briton Island under the auspices of the U. S. Geological Survey to study the pre-Cambrian geological formation discovered by Dr. F. S. Mathew.

DR. GEORGE A. DORSEY, curator of anthropology in the Field Columbian Museum, has returned from explorations in the southwest and has gone to Paris as a delegate to the International Congress of Anthropology.

DR. L. E. GRIFFIN, Bruce fellow at the Johns Hopkins University, is at present in Jamaica carrying on researches in animal morphology.

A LETTER has been received in Moscow from Dr. Swen Hedin narrating an excursion into Thibet. He reached Lake Lob Nor on the shores of which he discovered extensive ruins.

THE Madras Government has given an additional grant of 800 rupees to Captain R. H. Elliott for the continuation of his researches on snake venom.

DR. S. A. KNOPF of New York City, has received the prize of 4000 Marks offered by the Tuberculosis Congress at Berlin for the best essay on the subject 'How to Fight Tuberculosis as a Disease of the Masses.'

DR. T. G. BRODIE has been awarded twenty-five guineas from the Goldsmiths' Research Grant of the Royal College of Physicians in recognition of his work on the separation of diphtheria antitoxins.

THE Society of Chemical Industry has awarded its medal to Dr. Edward Schunck for his investigations on natural coloring matters and other researches in technical chemistry.

DR. RUDOLF of Strasburg, has received the Engelmann award (2500 Marks) of the University for geographical exploration.

A BOARD of Medical Officers has been appointed to meet at Camp Columbia, Quemados, Cuba, for the purpose of pursuing scientific investigations with reference to the infectious diseases prevalent on the Island of Cuba. The Board will act under instructions from the Surgeon-General of the Army. The members of the Board are Major Walter Reid, Surgeon U. S. A., and Acting Assistant Surgeons, James

Carroll, Aristides Agramonte, and Jesse W. Lazear. It is understood that the Board will devote attention chiefly to the investigation of yellow fever.

THE Berlin Academy of Science has made the following grants: Professor Adolf Schmidt, of Gotha, for the collating and publication of material on terrestrial magnetism, 750 Marks; Dr. Leonhard Schultze, of Jena, for investigations on the heart of invertebrates, 2000 Marks; Professor Emil Ballowitz, of Greifswald, for investigations on the structure of the organs of smell of vertebrates, 800 Marks; Dr. Theodore Boveri, of Würzburg, for experiments in cytology, 500 Marks; Professor Maxime Braun, of Königsberg, for studies on the Trematodea, 970 Marks; Dr. Paul Kuckuck, of Heligoland, for investigations on the development of Phæosporeæ, 400 Marks; Dr. Wilhelm Solomon, of Heidelberg for his geological and mineralogical investigations in the Adamello mountains, 1000 Marks; Professor Alexander Tornquist, of Strasburg, for the publication of his work on the mountains of Vicenza, 1100 Marks; Professor Alfred Voltzkow, of Strasburg, for the drawings of his work on the development of the crocodile, 1000 Marks; Professor Johannes Walther, of Jena, for the publication of his work on deserts, 1000 Marks.

WE regret to note that Dr. Gustav Born, professor of anatomy at the University at Breslau, died on July 6th, aged 49 years, and that Dr. Wiltheiss, associate professor of mathematics at Halle, died on July 9th.

THE contest of the will of the late Dr. Thomas W. Evans has been compromised by the payment of \$800,000 to the heirs. This, it is said, will leave about \$3,000,000 for the dental college and museum to be established at Philadelphia.

SURGEON-GENERAL STERNBERG states that 100 additional medical officers are wanted by the government for duty in the Philippines and in China.

THE schooner *Grampus*, of the U. S. Fish Commission, which returned on August 1st from a trip to the tile fishing grounds, reports a greater abundance of tile fish than ever before.

THE British Medical Association held its 68th

annual meeting at Ipswich from the 31st of July to the 3d of August, under the presidency of Dr. John Ward Cousins. According to the announcement of the program the general addresses were as follows: Address in Medicine, by Philip Henry Pye-Smith, M.D., F.R.S., consulting physician, Guy's Hospital; Address in Surgery, by Frederick Treves, surgeon extraordinary to H.M. the Queen; Address in Obstetrics, by William J. Smyly, examiner in midwifery, Royal College of Physicians, Ireland. The Association met in thirteen sections, including one on navy, army and ambulance, established this year for the first time. This section and the one on tropical diseases have especially full programs.

THE SWISS Scientific Society holds its 83d annual meeting at Thusis on the 2d, 3d and 4th of September. With it meet the Geological, Botanical and Zoological Societies of Switzerland. A number of interesting excursions have been arranged in connection with the meeting to which foreign men of science are invited.

THE International Society of the Psychical Institute is the name of a society recently established in Paris for the purpose of obtaining money to establish a museum and library at Paris, to encourage research, to publish a journal, etc. The society wishes to cover the whole field of psychology, but will apparently especially concern itself with those more or less occult phenomena in which societies for psychical research have chiefly interested themselves. The American members of the committee endorsing the program are Professor J. Mark Baldwin, Professor J. Howard Gore and Mr. Elmer Gates.

MR. J. E. S. MOORE, of the Royal College of Science, London, has returned from Central Africa, where he has been engaged in explorations under the auspices of the Royal Geographical Society. Among the results of his expedition are the ascent of one of the Mountains of the Moon, about 16,500 feet high; the more exact location of Lake Tanganyika, which is said to be fifty miles west of its ascribed position, and the discovery that Kivu is a much larger lake than had been supposed.

THE construction of the vessel designed by

Mr. W. E. Smith, one of the chief constructors to the Admiralty, for the National Antarctic Expedition is, as we have already noted, in active progress at the yard of the Dundee Shipbuilders' Company. The *Times* states that the ship, which is to be named the *Discovery*, is to be barque-rigged and to have three decks. Accommodation for those on board will be provided under the upper deck. The stem will be of the ice-breaker type, with strong fortifications. The length of the vessel between perpendiculars is 172 feet; beam, 34 feet; and depth, 19 feet. The timbers are of oak, dowelled and bolted together, and the keel, deadwoods, the stem, and the stem-posts are also of oak. The planking is of American elm and pitch pine, and the inside beams are of oak. With the object of avoiding the magnetic influence of iron on the scientific instruments on board, it has been decided that for a considerable radius amidships the knees and fastenings shall be of naval brass. In case the *Discovery* should have to winter in the ice, a heavy wagon cloth awning of strong woollen felt is to be provided. The fittings and equipment of the vessel will be of the most modern type. The engines, which are to indicate 450-horse power, are to be constructed by Messrs. Gourlay Brothers and Co., Dundee.

WE learn from the London *Times* that another addition to the numerous existing processes designed to prevent decay in wood is now being introduced into England by the Xylosote Company in the shape of the Hasselmann system. In this the timber to be treated is enclosed in a cylindrical vessel in which a fairly high vacuum can be produced by a suitable air-pump. When the sap has been drawn out of the pores under the diminished pressure a solution of metallic and mineral salts is allowed to flow into the vessel, and the wood is steeped in this for some hours under a certain pressure of steam and at a temperature of about 130 degrees C. Then, after being dried, it is ready for use. The impregnating liquid is a solution of the sulphates of copper and iron, whose preservative properties are generally acknowledged, together with some aluminium, potassium, and magnesium salts. The inventor of the process maintains that the copper destroys any germs

of decay that may be present, while the iron combines with the cellulose, or woody fiber, to form a compound which is insoluble in water and hence cannot be washed out by the action of rain. The salts in this way are made to permeate the substance of the wood, and are not merely deposited mechanically as minute crystals in the pores by the evaporation of the solvent. It is claimed for the process, which, apart from the drying, takes about four hours, that it greatly reduces the inflammability of the wood, enables it to take a brilliant polish, and increases the hardness of certain soft woods to such an extent as to render them available for purposes to which formerly they could not be applied. Another advantage attributed to it is that it saves the expense of seasoning in the ordinary way, since perfectly green wood after treatment neither shrinks nor warps. The process appears already to have gained considerable recognition abroad; thus it is stated that the Bavarian State railways and post-office have contracted to have all their sleepers and poles up to 1905 treated by it, while the Swedish Government has adopted the system and ordered 600,000 sleepers preserved by its use.

FIGURES have been issued in regard to immigration at the port of New York for the year ending June 30th, from which it appears that 341,711 emigrants passed through the port during the year. This is an increase of nearly 100,000 over last year. The following table shows the arrivals of some of the races:

Race.	1898-'99.	1899-1900.
Bohemian and Moravian .....	1,935	2,329
Croatian and Slavonian .....	6,837	8,906
English .....	4,258	4,346
Finnish .....	3,349	6,783
French.....	2,013	1,956
German .....	21,219	23,382
Greek .....	2,351	3,734
Hebrew .....	27,086	44,520
Irish .....	21,637	25,200
Italian (northern).....	13,008	16,690
Italian (southern).....	63,481	82,329
Lithuanian .....	6,033	9,170
Magyar.....	4,517	11,351
Polish.....	26,015	36,855
Ruthenian.....	1,371	2,653
Scandinavian .....	16,034	22,847
Slovak .....	13,550	25,392

THE Sydney correspondent of the *British Medical Journal* describes the various means which have been taken to prevent the spread of the plague in that city. As soon as a case is notified to the Board of Health a medical officer is despatched, and if he confirms the diagnosis the patient is at once removed to the quarantine hospital as well as all the other residents in the house. The house is then thoroughly disinfected under the supervision of the Board of Health officials. The contacts are kept in quarantine for five days, and if no suspicious cases occur among them they are then allowed to return to their home. Large areas of the city have been quarantined in succession, all the residents are kept inside the barriers and not allowed to go to their business. Each house is then cleaned and disinfected; all sanitary fittings and drains attended to, and all rubbish removed and burnt. This process has now been gone through in a large part of the city, so that it is probably cleaner than it has been for a very long time. There has also been an organized crusade against rats, and a capitation grant of 6d. is now made for all rats brought to the incinerator. This has resulted in a very large number of these animals being destroyed. The Government has decided to resume a large part of the wharfage in Darling Harbor and practically rebuild it with stone facings. Citizens' Vigilance Committees have also been organized in the various electoral districts of the city and suburbs, with the object of assisting the Board of Health and the local municipal councils in cleaning and disinfecting. Hitherto in every case all the contacts have been removed to quarantine ground, but it is now recognized that this is not necessary in every case, and at a special meeting of the New South Wales Branch of the British Medical Association it was resolved to appoint a deputation to wait upon the Premier to point out that in the opinion of the members of the Branch the indiscriminate quarantining of contacts is unnecessary.

A GREAT deal of important scientific investigation says the *London Times* is being carried on at different marine biological stations around the coast. Admirable work has been done at the Marine Biological Laboratory at

Plymouth, and it is much to be regretted that more liberal funds cannot be provided to allow the Association to carry on its investigations on a more extended scale. The purpose of that Association was stated by the late Professor Huxley to be that of "establishing and maintaining laboratories on the coasts of the United Kingdom where accurate researches may be carried on leading to the improvement of zoological and botanical science and to an increase of our knowledge as regards the food, life conditions, and habits of British food-fishes and molluscs." At the request of the Devon Sea Fisheries Committee, Mr. W. Garstang, of the Plymouth Association, some time since prepared a report on the efficacy of the methods heretofore adopted in sea fishery hatcheries, together with an account of recent experimental work bearing upon the rearing of the fry of sea fishes, and of the bearings of experiments upon practical proposals for artificially increasing the stock of fish on depleted fishing grounds. In the report in question Mr. Garstang expresses the opinion that in no case has the utility of any past operations in sea fish hatching been satisfactorily demonstrated. He contends that the methods heretofore adopted and the scale upon which they have been carried out have been altogether inadequate for the production of the results which in all cases have been aimed at, and which in several cases have been claimed to have been attained. He believes that no useful results can be expected to accrue from sea fish hatcheries until the problem of feeding and rearing the fry to a more advanced stage has been satisfactorily solved. While he considers that there is a fair prospect of an early solution of this difficulty, he advises that in the meantime, the most useful measure to adopt would be to promote the artificial propagation of sea fishes on board the fishing boats during the spawning season, fertilized eggs to be returned at once to the sea. Mr. Garstang alludes to the sea fish hatcheries which claim to have conducted their operations on more than an experimental scale. These include the cod fish hatcheries in Norway, the United States Fish Commission's hatcheries at Woods Holl and Gloucester, and the Newfoundland Government hatchery at Dildo Island. In regard to

the latter he says: "The inconsistency of the claims made for the work of this hatchery have been exposed by Mr. Fryer in several recent reports of the inspectors of fisheries, so that, beyond expressing my conviction of the fairness and accuracy of his criticisms, I need not dwell upon the merits of this case."

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#### UNIVERSITY AND EDUCATIONAL NEWS.

SIR JAMES CHANCE has given £50,000 to the endowment fund of the University of Birmingham, which now amounts to about \$2,000,000.

THE residuary estate of the late James Garland is left to Harvard University in the event of no grandchildren surviving. The contingency is perhaps rather remote, but the amount of money involved is said to be several million dollars.

It appears that one of the nephews of the late Jonas Clark is taking steps to dispute the will leaving money to Clark University, but an appeal has not yet been made to the court.

THE new building for the first chemical laboratory of the University of Berlin was dedicated on July 14th. Professor Emil Fischer, director of the laboratory, made an address after which the new building was thrown open for inspection. There were present the minister of instruction, the rector of the University, the permanent secretary of the Academy of Sciences and a number of delegates from foreign universities.

DR. CHARLES A. KOFOID, assistant professor of zoology in the University of Illinois and superintendent of the Natural History Survey of that State, has been appointed assistant professor of histology and embryology in the University of California to begin work January 1, 1901.

MR. R. S. CLAY, late lecturer in physics at the Birkbeck Institution, has been appointed principal of the Wandsworth Technical Institute, London.

DR. EDWIN KLEBS has resigned the professorship of pathology in the Rush Medical College of the University of Chicago.