

presidential address "The Chemical Exploitation, Past, Present and Future, of Australian Plants." The chairman of the local committee is the Honorable P. Collier, premier of Western Australia. The presidents of sections and the titles of their addresses are as follow: *A (Astronomy, Mathematics and Physics)*, Professor Kerr Grant, "Atomic Transformation"; *B (Chemistry)*, Professor James Kenner, "Some Aspects of the Problem of Molecular Structure"; *B 2 (Pharmacy)*, Mr. A. T. S. Sissons, "The Indebtedness of Pharmacy to Organic Chemistry"; *C (Geology and Mineralogy)*, Sir Douglas Mawson, "The Igneous Rocks of South Australia—a brief Survey of Present Knowledge relating thereto"; *D (Zoology)*, Professor Launcelot Harrison, "The Composition and Origins of the Australian Fauna, with special reference to the Wegener Hypothesis"; *E (Geography and History)*, Professor Ernest Scott, "The Discoveries of the Western Australian Coast, with especial reference to Dampier and D'Entrecasteaux"; *F (Ethnology and Anthropology)*, Professor F. Wood Jones, "The Claims of the Australian Aboriginal"; *G (Social and Statistical Science)*, Major L. F. Giblin, "Federation and Finance—an Examination of the Financial Relations of States to a Federal Commonwealth"; *H (Engineering and Architecture)*, Sir John Sulman, "Town Planning"; *I (Sanitary Science and Hygiene)*, Mr. F. S. Hone; *J (Mental Science and Education)*, Mr. P. Board, "Social and Economic Values in Education"; *K (Agriculture and Forestry)*, Mr. C. E. Lane Poole, "Forestry and Land Settlement"; *L (Veterinary Science)*, Professor J. Douglas Stewart, "The Relationship of Veterinary Science to the Prosperity of the State"; *M (Botany)*, Professor A. J. Ewart, "Past and Future Development of Botanical Science"; *N (Physiology and Experimental Biology)*, Professor W. A. Osborne, "The Study of the Reflex." The honorable local secretaries for Western Australia are Mr. A. Gibb Maitland, Geological Survey, Perth, and Professor N. T. M. Wilsmore, University of Perth.

FIELD WORK OF THE VICTORIA MEMORIAL MUSEUM—1926

A CONSIDERABLE amount of field work is done each summer by the Victoria Memorial Museum, which occupies the position of a national Canadian museum. Its field parties are distributed throughout Canada and are engaged chiefly in collecting natural history specimens and records for the museum collections and in scientific investigations of various sorts.

The museum originated seventy-eight years ago in the Geological Survey. It is still closely related with the present institution and its departments of geology, mineralogy and paleontology are maintained by the

survey, but in its other departments of anthropology and biology it has attained more nearly to the status of a distinct institution.

During 1926 field work will be done as follows:

ANTHROPOLOGY

D. Jenness will investigate and collect relics from the sites of ancient Eskimo habitations on the Alaskan and Siberian coasts of Bering Sea. Bering Strait has been a route for migration of aboriginal peoples between Asia and America and is a favorable place for the study of these migrations and the spread of Asiatic ethnological influences among the Eskimo of northern Canada. In the course of this work study will be made of modern Eskimo culture and language, particularly for the purpose of augmenting a "Comparative Grammar and Vocabulary of the Western Eskimo Dialects" which Mr. Jenness is compiling.

C. M. Barbeau will continue a study of the social organization, religion and legends of the Tsimshian Indian tribes of Skeena River, upon which he has been engaged for some years. He will also collect information concerning the totem poles of these tribes.

H. I. Smith will continue the work of restoring and preserving totem poles in the Skeena River area. Owing to decline in Indian social organization under the influence of white civilization, these interesting relics are rapidly deteriorating and in danger of complete disappearance. Last year the Canadian National Railways, the Department of Indian Affairs, the Parks Branch, Department of the Interior and the Victoria Memorial Museum took prompt action to preserve the remaining totem poles. In the course of this work Mr. Smith will also study and collect archeological specimens for the museum.

W. J. Wintemberg will excavate ancient Indian village sites and other ruins near Collingwood, in Grey County; near Creemore, Simcoe County; near St. Williams, Norfolk County, and at Lake Medad, Halton County.

BIOLOGY

P. A. Taverner will make a zoological survey of the region northwest of Edmonton between the Canadian National and Edmonton Dunvegan and British Columbia railways and will collect specimens for the museum. He will be assisted by Messrs. Hamilton M. Laing and C. G. Harrold. He will also cooperate with Professor William Rowan, of the University of Alberta, in placing identification bands upon gulls at Beaverdell Lake.

C. H. Young will collect specimens of birds, mammals and other animals in the northern part of Cypress hills, Saskatchewan, and from the foothills of the Rocky Mountains in southern Alberta.

R. M. Anderson will make a zoological survey in northern Ontario just north and west of Lake Superior.

M. Q. Malte will conduct a systematic botanical survey of the flora of New Brunswick, particularly in the region of the Bay of Chaleur. A visit will also be made to Prince Edward Island to examine certain species of bent grasses which appear to be suitable for lawns and golf greens.

A. E. Persild, who is being sent by the Department of the Interior to the country just east of the Mackenzie River delta to investigate conditions for introduction of reindeer, will, through the courtesy of his department, make a botanical survey of this region and collect plants for the National Herbarium.

J. D. Soper, who was sent to Baffin Island in 1924 with the annual Canadian government supply expedition, will continue general biological survey work and collection of specimens until September of this year, when he will return to Ottawa. Mr. Soper intends to travel from Pangnirtung, on Cumberland Sound, which has been his headquarters, through Nettiling and Amadjuak lakes to the coast of Hudson Strait, where he will be picked up by a Hudson Bay Company's steamer.

W. S. Odell, *C. Patch* and *C. Johnson* will collect zoological and botanical specimens in the vicinity of Ottawa. Mr. Patch is engaged in collecting material for an illustrated systematic report upon the amphibia and reptilia of Canada.

GEOLOGY AND MINERALOGY

No parties are being sent out expressly for museum purposes, but contributions to the geological and mineral collections will be made incidentally by parties of the Geological Survey.

PALEONTOLOGY

C. M. Sternberg will be sent by the Geological Survey to the Red Deer River Valley near Rumsey, Alberta, to collect fossil remains of dinosaurs and other vertebrate animals. This area is one of the richest repositories in the world and has yielded many fine specimens to Canadian and United States museums.

Other paleontological investigations and collections will be made incidentally by parties of the Geological Survey.

W. H. COLLINS,
Acting Director

WORLD LONGITUDE DETERMINATION

THERE will be a world longitude determination by radio signals, beginning October 1 and ending December 1. This project proposed several years ago has the approval of the International Astronomical Union and of the International Geodetic and Geophysical Union.

The principal stations of the so-called "fundamental polygon" will be at the Naval Operating Base, San Diego, Calif., at the Algiers Observatory and at the Shanghai Observatory. These stations are at nearly the same latitude, and are spaced approximately eight hours apart in longitude. It is proposed to determine the differences of longitude with great accuracy and to make redeterminations at intervals sufficiently separated in time in order to test the permanency of their relative positions and certain possibilities as to movement of the earth's crust.

It is expected that many other observatories will join in this operation, including Washington, Greenwich, Paris and Australasian observatories. The U. S. Coast and Geodetic Survey proposes to occupy stations at Honolulu and Manila.

The radio signals will be of the so-called rhythmic type, so spaced that there will be 61 signals per minute for 5 minutes, 306 in all. They will be sent at three periods of the day, as follows, Greenwich time:

Location	Meters	h m		h m	
Annapolis	17,145	20: 10	to 20: 15	3: 10	3: 15
		10: 10	10: 15		
Arlington or Bellevue.....	74.7 and 24.9	20: 20	20: 25	3: 20	3: 25
(near Washington)		10: 20	10: 25		
Honolulu	11,500	20: 30	20: 35	3: 30	3: 35
		10: 30	10: 35		
Honolulu	36.8	20: 40	20: 45	3: 40	3: 45
		10: 40	10: 45		
Saigon	17,000 and 25	11: 30	11: 35	19: 00	19: 05
Bordeaux	18,900	8: 01	8: 06		
d'Issy (near Paris).....	32	20: 01	20: 06	8: 01	8: 06
		20: 01	20: 06		

It is suggested and urged that as many astronomical observatories as can arrange to do so make time observations and receive the signals thus enabling them to establish their longitudes with reference to one or more of these points of reference. The radio signals may be received automatically on a chronograph, a method which has some obvious advantages, or by ear by the coincidence or other methods. Short wave signals are sent as well as long wave signals, as some observers report better reception by the short waves especially at very distant stations, when there is not much daylight between the stations.

The Annapolis and Arlington (or Bellevue) signals will be the principal ones by which observers in this country can connect directly with Washington. These signals will also probably give a direct connection with Greenwich and Paris, as will also the Bordeaux signals.

The International Astronomical Union recommends that in the reductions the star places of the American Ephemeris be used as far as possible and that clock