of the Sahara, and with a high proportion of endemism—more than 40 per cent.

Even more indicative of the desert affinities of the insular bird life is the fact that most of the distinctly Ethiopian types have their nearest continental relatives not in the neighboring Congo forest toward the southeast, but rather in an encircling belt of territory which forms a loop around the forest in East Africa and extends into South Africa. Thus, an endemic finch of the Cape Verdes (*Passer jagoensis*) is closely related to *Passer cordofanicus* of the upper White Nile, *Passer ruficinctus* of East Africa, and *Passer motitensis* of the arid parts of South Africa, while no representative occurs in the Congo.

In both relative position and zoogeographic aspects, the Cape Verde Islands are somewhat analogous to the Galapagos Islands, situated westward of South America, in a lower latitude and in a different meteorological environment.

The Cape Verdes owe their prevailing aridity chiefly to the fact that they are tropical islands which lie to leeward of relatively cool ocean waters. The group is truly oceanic, with a flora and fauna derived from elsewhere after the volcanic formation of the islands.

Meteorological and oceanographic conditions resulting from the northeast trade wind cause the mean temperature of the surface of the ocean about the Cape Verde Islands to be lower than that of the atmosphere. This is at variance with conditions in the western tropical and north temperate Atlantic, and is correlated with significant features of sea bird distribution. Thus the islands are the northernmost outpost in the eastern Atlantic of the breeding range of tropical Steganopodes (booby, tropic bird, and frigate bird), whereas all these birds reach higher latitudes in the western Atlantic. In like manner, the tropical species of terns penetrate much farther north in the western than in the eastern part of this ocean. To express the difference by an example, it may be said that the hiatus between the breeding ranges of a tropical tern, *Anous stolidus*, and a Holarctic tern, *Sterna hirundo*, is fifteen hundred miles wide in the eastern Atlantic, and less than six hundred miles wide in the western Atlantic. At the Cape Verdes there are no native terns or other Laridae.

These circumstances undoubtedly have to do with marine ecology, for the limits in the breeding range of both tropical and north temperate sea birds prove to be closely correlated with certain isotherms of ocean temperature.

ROBERT CUSHMAN MURPHY
AMERICAN MUSEUM OF
NATURAL HISTORY

SCIENTIFIC EVENTS

THE TORONTO MEETING OF THE BRITISH ASSOCIATION

OVERSEA members of the British Association for the Advancement of Science coming to the Toronto meeting, beginning on August 6, include the following:

Section G—Engineering

President—G. W. O. Howe, James Watt professor of electrical engineering, University of Glasgow, and editor of the *Radio Review*. His presidential address will deal with "A hundred years of electrical engineering."

Vice-president—Sir Henry Fowler, chief mechanical engineer of the Midland Railway, will speak on "Metallurgy and its influence on social life."

Recorder—F. C. Lee, professor of civil engineering, University of Birmingham.

Secretary—A. Robertson, professor of mechanical and mining engineering, University of Bristol.

Secretary—J. S. Wilson.

T. Hudson Beare, Regius professor of engineering and dean of the faculty of science of Edinburgh University.

Henry Borns.

Ernest J. Coker, professor of civil and mechanical engineering, University of London.

G. Cook, professor of mechanical engineering, King's College, University of London.

George Forbes, late electrical engineer for the works at Niagara Falls.

B. P. Haigh, professor at Royal Naval College, Greenwich.

Sir James B. Henderson, adviser in gyroscopic equipment to the Admiralty, and professor of applied mechanics, Royal Naval College, Greenwich.

Charles Frewin Jenkins, professor of engineering science in the University of Oxford.

Sir William John Jones.

Edgar Waldorf Marchant, professor of electrical engineering, University of Liverpool.

Hon. Sir C. A. Parsons, chairman of the C. A. Parsons Company, Newcastle-on-Tyne, and the Parsons Marine Steam Turbine Company. Past president of the British Association.

H. P. Philpot, professor of civil and mechanical engineering in the City and Guilds Technical College, London.

Section M—Agriculture

President—Sir John E. Russell, director of the Rothamsted Experiment Station, England, will deliver his presidential address on the subject of "Combination in attacking farmers' problems" and will discuss "Diminishing returns in agriculture."

Vice-president—Charles Crowther, director of research, Olympia Agricultural Company; formerly professor of agricultural chemistry, and head of the Institute for Research on Animal Nutrition in the University of Leeds.

Recorder—C. J. T. Morison, School of Rural Economy, Oxford.

Secretary—T. S. Dymond, London.

Secretary—G. Scott Robertson, head of the chemical research division, Ministry of Agriculture and chief agricultural analyst for Northern Ireland.

Rt. Hon. Lord Charles Bathurst Bledisloe, chairman of the committee for agricultural research, Bristol University, will discuss "Diminishing returns in agriculture," in joint discussion with Section F.

A. W. Borthwick, on staff of Forestry Commission, England.

Malcolm Janes Rowley Dunstan, principal of Royal Agricultural College, Cirencester.

R. A. Fisher, chief statistician in Rothamsted (Agricultural) Experiment Station, Harpenden, Herts.

Sir Robert Blythe Greig, chairman of the Board of Agriculture for Scotland.

Sir John McFadyen, principal and professor of comparative pathology, Royal Veterinary College, London, will speak on "Contagious abortion in relation to animal husbandry."

Sir Henry Rew, formerly assistant secretary of the Board of Agriculture and Fisheries.

Sir Stewart Stockman, chief veterinary officer and director of veterinary research with the Ministry of Agriculture and Fisheries, will speak on "Tuberculosis in relation to animal husbandry."

R. G. White, professor of agriculture in the University College of North Wales, Bangor.

THE ITHACA MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE sixty-eighth meeting of the American Chemical Society will be held at Cornell University, Ithaca, N. Y., from September 8 to 13. The first day will be occupied with registration and council meetings. The general program follows:

SEPTEMBER 9, 9:30 A. M.

Bailey Hall—general meeting. Dr. Livingston Farrand, president of Cornell University, presiding.

Addresses of welcome.

Response: Dr. Leo Baekeland, president of the American Chemical Society.

General addresses. Sir Max Muspratt, "Chemistry and civilization"; Professor S. P. L. Sorensen, "Serum globulins"; Sir Robert Robinson, "The chemistry of the trinitrotoluenes."

2:30 P. M.

Baker laboratory, main lecture room.

Description of the laboratory: Dr. L. M. Dennis, director of the department of chemistry, Cornell University.

Inspection of laboratory, equipment and exhibits.

8:30 P. M.—Bailey Hall

Entertainment for members and guests.

SEPTEMBER 10, 9:30 A. M.

General meetings of physical and inorganic, industrial and chemical education divisions. Divisional meetings.

8:30 P. M.

Bailey Hall—President Leo H. Baekeland, presidential address; President Livingston Farrand, public address. (Titles to be announced.)

SEPTEMBER 11, 9:30 A. M. AND 2:30 P. M.

Divisional meetings. Evening open.

SEPTEMBER 12, 9:30 A. M.

Divisional meetings.

2:45 P. M.

Boat from foot of Buffalo Street to Salt Works, Taughannock and Glenwood Hotel or tennis, golf and other diversions.

7:00 P. M.

Dinner and dance at Glenwood-on-Cayuga.

SEPTEMBER 13, 9:00 A. M.

Trips to points of industrial or scenic interest.

The following are the addresses of the divisional and sectional secretaries:

Agricultural and food chemistry, C. S. Brinton, U. S. Food Inspection Station, 134 S. 2nd St., Philadelphia, Pa.

Biological Chemistry, R. A. Dutcher, Department of Agricultural Chemistry, Pennsylvania State College, State College, Pa.

Cellulose chemistry, L. F. Hawley, Forest Products Laboratory, Madison, Wis.

Chemical education, Neil E. Gordon, University of Maryland, College Park, Md.

Dye chemistry, R. Norris Shreve, 74 S. Munn Ave., East Orange, N. J.

Fertilizer chemistry, H. C. Moore, Armour Fertilizer Works, 209 W. Jackson Blvd., Chicago, Ill.

Industrial and engineering chemistry, E. M. Billings, Kodak Park, Rochester, N. Y.

Leather and gelatin chemistry, Arthur W. Thomas, Department of Chemistry, Columbia University, New York City.

Chemistry of medicinal products, H. A. Shonle, 115 E. 28th St., Indianapolis, Ind.

Organic chemistry, J. A. Nieuwland, Notre Dame, Ind.

Petroleum chemistry, G. A. Burrell, Columbia Bank Building, Pittsburgh, Pa.

Physical and inorganic chemistry, H. B. Weiser, Rice Institute, Houston, Tex.

Rubber chemistry, Arnold H. Smith, 6748 Newgard Ave., Chicago, Ill.

Sugar chemistry, Frederick J. Bates, Bureau of Standards, Washington, D. C.

Water, sewage and sanitation chemistry, F. R. Georgia, Department of Chemistry, Cornell University, Ithaca, N. Y.

Gas and fuel section, O. O. Malleis, 333 Melwood St., Pittsburgh, Pa.

History of chemistry section, L. C. Newell, 688 Boylston St., Boston, Mass.