tion, that two academy members are high officers in a great public-service corporation, etc.

If on the map of the United States a line be drawn, starting on the Atlantic coast at Lynn, Massachusetts, with straight sections of the line terminating successively at Schenectady, New York; Ithaca, New York; Pittsburgh, Pennsylvania; Washington, D. C., and the Atlantic coast, the area limited by this line and the coast line will contain the residences of 158 of the 238 members of the academy, or 66 per cent.

A similar line, starting at Cleveland, Ohio, and passing successively through Detroit, Michigan; Madison, Wisconsin; St. Louis, Missouri, and back to Cleveland, will bound an area in which reside 40 members of the academy, or nearly 17 per cent.

In the State of California, at Berkeley, Palo Alto (Stanford), Mount Hamilton, Pasadena and La Jolla, there reside 36 members, or 15 per cent. of the total membership.

In the western two thirds of the United States, that is, west of a north and south line passing through St. Louis, but excluding California, there are three members: one at Iowa City, Iowa; one at Denver, Colorado (retired), and one at Flagstaff, Arizona.

East of a north and south line drawn through St. Louis, and south of a line starting at St. Louis and running through Cleveland, Pittsburgh, Washington and on to the Atlantic coast, one academy member resides—at Chapel Hill, North Carolina.

The three northern states of New England contain no academy members.

The distribution of memberships in the academy seems to deserve the thoughtful consideration of all those who are in any way responsible for the higher educational interests of the nation.

W. W. CAMPBELL

BERKELEY, CALIFORNIA, AUGUST 10, 1928

SCIENTIFIC EVENTS

THE CENTENARIES OF THOMAS YOUNG AND HUMPHRY DAVY¹

Two of the centenaries of greatest scientific interest which occur next year will be those of the deaths of Thomas Young and Sir Humphry Davy, both of whom died in May, 1829, the former in London and the latter at Geneva. The birth of Young took place in 1773, that of Davy in 1778, the centenaries of which, in 1873 and 1878, however, the scientific world allowed to pass without proper recognition. In the case of Davy we commented in our columns at the time on this lack of recognition, adding, "We leave it

to a foreign nation to honor the memory of one of our greatest explorers and to a petty provincial town to commemorate the birth of one of our greatest chemists." It is with interest, therefore, we learn that inquiries are already being made as to what steps are being taken to pay due homage to Young, who was the first to explain the phenomenon of the interference of light, who described the optometer, the precursor of the ophthalmoscope, who first gave the word "energy" its present scientific significance, who provided engineers with "Young's modulus," and who deciphered the Rosetta Stone. Of Davy it is only necessary now to recall his experiments with nitrous oxide, his isolation of potassium and sodium, his determination of the elementary character of chlorine and his invention of the safety lamp.

Both Young and Davy came from the "West Country,"—the former from Somerset, the latter from Cornwall-both became distinguished fellows of the Royal Society, both were connected with the Royal Institution, both were foreign associates of the Paris Academy of Sciences, and both are commemorated in Westminster Abbev. If Young surpassed Davy in the depth and range of his scientific inquiries and his immense learning. Davy by his manipulative skill, his command of language and his poetic imagination secured a popularity denied his great contemporary. Both, however, had a world-wide reputation, and while Davy's work is commemorated by the Davy Medal of the Royal Society. Young's is recognized by "The Thomas Young Oration" of the Optical Society. It is to those societies that the scientific world will look for the initiation of the proper celebration of the centenaries of these eminent men of science.

OLD MAPS AT THE BRITISH MUSEUM

The Geographical Journal, published by the Royal Geographical Society, London, reports that, on the occasion of the International Geographical Congress, Mr. F. P. Sprent, in charge of the map department, arranged an exhibition of manuscript and printed maps in the King's Library of the British Museum. Among the maps exhibited were several of the unique or rare possessions of the museum, which have frequently been described, such as the world map of 1506 drawn by Contarini (the first printed map to show any part of America), the manuscript map of Guiana drawn for Sir Walter Raleigh and Hondius's world map showing Drake's route on his circumnavigation. with the accompanying "Corte Beschryvinghe" and portraits of Drake and Cavendish. In selecting and arranging the maps, Mr. Sprent has succeeded in combining comprehensiveness with variety, for all the continents and most countries are represented, and most types of maps. The opening section contains

¹ From Nature.

three maps of the British Isles—the first printed map from the Bologna edition of Ptolemy, the map by George Lily published at Rome in 1546 and Saxton's map of 1579—with several specimens of early county maps by Saxton, Norden and Speed, also Lambarde's "Carde, of the Beacons, in Kent" (1596). Then, in addition to that already mentioned, are two other maps illustrating Drake's career, the early French issue of the map of his circumnavigation, probably published in Amsterdam about 1581, and the map from "Summarie and True Discourse of Sir Francis Drake's West Indian Voyage," 1589.

Another section illustrates the early exploration of North America and the search for the North-West Passage with, among others, Michael Lok's map from Hakluyt's "Discovery of America," 1582, and Frobisher's map of supposed North-West passage of 1578. The road-book section comprises the map of Central Europe showing pilgrim routes across the Alps to Rome printed at Nuremberg in 1492, and entitled "Das ist der Rom Weg," one of the earliest printed maps to show any indication of routes, and several of Cary's publications from the end of the eighteenth century.

The manuscript maps are equally comprehensive: a particularly interesting item is three maps of Great Britain drawn by Matthew Paris, of St. Albans, in the middle of the thirteenth century. These show a fairly correct general topographical knowledge, the two outstanding lapses being the significant distortion which makes the Thames a south-coast tributary and the severance of Scotland from England but for a bridge at Stirling. There is also an indication on one of what is assumed to be a high-road from London and St. Albans to Durham. Two small ecclesiastical world maps are also shown, with the characteristic circular form, Jerusalem at the center, and the east at the top, very similar to the early woodcut map from "Rudimentum Noviciorum," Lubeck, 1475, and a fifteenth-century Greek manuscript of Ptolemy. The portolans exhibited comprise elaborately decorated specimens of the work of Battista Agnese, Fernão Vaz Dourado and Diego Homem, and a portion of the east coast of S. America by John Rotz, or Jehan Roze, of Dieppe, 1542. The last section, city views and plans, contains perhaps some of the less wellknown items of the exhibition-Cunningham's Norwich, 1559; Lyne's Cambridge, 1574; Hooker's Exeter, 1587; Norden's Westminster, 1593; Hollar's Oxford, 1643, and Millerd's Bristol, 1671. There are also representations of Jerusalem (from Bernhard von Breydenbach's "Peregrinationes," Mainz, 1486), New York and London, the last including works by Agas, Hollar and Rocque. This exhibition is said to offer an opportunity of becoming familiarized with the main developments of historical cartography.

THE ERIKSSON PRIZES

THE committee on the Eriksson Prizes of the International Conference for Phytopathology and Economic Entomology announces that two prizes are offered for the two best memoirs, giving an account of new and original work on the two following subjects, respectively: (1) Investigations on Rust (Uredineae) Diseases of Cereals (Wheat, Oats, Barley or Rye). (2) Investigations on the rôle played by insects or other invertebrates in the transmission or initiation of Virus Disease in Plants.

The value of each prize will be 1,000 Swedish crowns. Competitors may be of any nationality. Three typewritten copies of each memoir must be submitted. They may be written in any one of the three languages, English, French or German. Memoirs must reach the secretary of the committee, Mr. T. A. C. Schoevers, Wageningen, Holland, on or before May 1, 1930.

The author's name must not appear on the memoir itself, but each memoir must be marked with a pseudonym or a motto and the full name and address of the author must accompany the memoir, being enclosed in a sealed envelope bearing on its outside the same pseudonym or motto as is given on the memoir.

The adjudication of the rust prize will rest with a jury, consisting of Professor Dr. Jacob Eriksson, Professor Dr. E. C. Stakman and Professor M. Et. Foëx. The jury for the virus prize will be announced as soon as possible. The decisions of these juries will be final, and will be announced at the fifth International Botanical Conference, to be held in Cambridge (England), from August 16 to 30, 1930. The copyright of the prize memoirs will become the property of the committee, who will endeavor to secure publication of them in a suitable existing periodical or, failing that, procure publication in some other way. Other memoirs will be returned to their authors.

The committee reserves the right to withhold the prizes should none of the memoirs submitted be deemed of sufficient merit by the respective juries. Further particulars, if required, may be obtained on application to the secretary, at the above-mentioned address.

The International Committee for Phytopathology and Economic Entomology, H. M. Quanjer, Wageningen, is president of the committee. The other members are: O. Appel, Berlin-Dahlem; J. Eriksson, Stockholm; J. C. F. Fryer, Harpenden; L. Garbowski, Bydgoszez; E. Gram, Lyngby; L. O. Howard, Washington, D. C.; J. Jablonowski, Budapest; E. de Jaczewski, Leningrad; S. Kusano, Tokyo; L. Mangin, Paris; E. Marchal, Gembloux; P. Marchal, Paris; C. Moreira, Rio de Janeiro; G. H. Pethybridge, Harpenden; L. Petri, Rome; T. A. C. Schoevers, Wageningen, and C. L. Shear, Washington, D. C.