the interference with the laws of nature by the introduction of alien species or extermination of native ones, whether of plants or animals.

A corollary of his botanical studies was the founding of the *American Midland Naturalist,* a journal devoted primarily to the natural history of the prairie states. In May, 1934, it celebrated its silver jubilee and has grown from volumes covering two years each of about 300 pages to yearly volumes of nearly 1,000 pages.

His chemical studies were devoted mainly to the synthesis of organic compounds from acetylene, which included the fundamental researches underlying the synthesis of Duprene, the outstanding synthetic rubber of to-day. Another product of his acetylene researches was developed into Lewisite by the Chemical Warfare Service, under the direction of Professor G. N. Lewis. Father Nieuwland was a member of the American Association for the Advancement of Science; the American Chemical Society, serving as secretary and as chairman of the Organic Division; the Deutsche Chemische Gesellschaft; the British Chemical Society; the Biological Society of Washington; the Washington Academy of Science, and the Indiana Academy of Science, of which he was president in 1934. He served as counselor of the St. Joseph Valley Section of the American Chemical Society for many years. He was the recipient of several medals for his work in chemistry, the most important being the Nichols medal, awarded by the New York Section in 1935. He was much pleased with the Gregor Mendel medal from Villanova College, with its ornamentation of peas.

An accomplished linguist, he spoke his own native Flemish, German, some Italian, was well versed in French, Latin and Greek. It is doubtful if there was a plant name the etymology of which in Greek and Latin was not thoroughly understood by him. This was often a chief subject of conversation on long automobile trips. He was something of a musician, knew much of classical music and was no mean performer on the guitar.

He had a happy disposition and was singularly modest. He liked children, and nearly always found a ready coin for them. He displayed a keen sense of humor, was quick at repartee, clever at paraphrasing verses and making bons mots. To find him to take on a botanical trip on Sundays or holidays, one nearly always sought him in his laboratory. He never seemed happier than in some wet meadow or tamarack bog digging up a new or unusual plant.

He will be sadly missed by his fellow members in the Indiana Academy of Science, the American Chemical Society and the University of Notre Dame that he loved and served so well.

M. W. LYON, JR.

SOUTH BEND, IND.

RECENT DEATHS AND MEMORIALS

DR. SAMUEL H. WEBSTER, head of the department of civil engineering of the Rhode Island State College, died on June 22. He was sixty-seven years old.

DR. JOHN JAMES SCHOONHOVEN, chairman of the department of zoology of the Brooklyn Institute of Arts and Sciences, died on June 27 in his seventy-second year.

Nature writes: "The death of Sir Frederick Macmillan on June 1, at eighty-four years of age, ends a remarkable triumvirate in the history of the firm of Messrs. Macmillan and Company, Ltd., the publishers of *Nature* ever since it was founded by them and Sir Norman Lockyer in November, 1869. At that time the firm consisted of Alexander Macmillan, who died in 1896, and George Lillie Craik, who died ten years later. During their lifetime three other partners were admitted — Frederick Orridge Macmillan (1874), George Augustin Macmillan (1879) and Maurice Crawford Macmillan (1883). By a most tragic set of circumstances, these three directors have all passed into silence within a period of three months. George Macmillan died on March 3, Maurice Macmillan on March 30 and on the day of his brother's funeral Sir Frederick slipped on the floor of his dressing-room and this accident led to his death."

THE following deaths are also announced in *Nature:* Professor Francis Cavers, formerly professor of biology in University College, Southampton, author of text-books on elementary botany, on May 26. Sir Archibald Denny, Bart, ship-builder and engineer, formerly president of the Institute of Marine Engineers and in 1918–27 chairman of the British Engineering Standards Association, on May 29, aged seventy-six years.

THE *Journal* of the American Medical Association states that a monument erected on the grave of Dr. Perry H. Millard, the first dean of the University of Minnesota Medical School at Minneapolis, was dedicated in Fairview Cemetery, Stillwater, on June 7. In addition, a suitable plaque is to be placed in the university and surplus funds collected for the memorial are to be turned into the general fund of the Medical Alumni Association. The principal address at the dedication ceremonies was delivered by Dr. James T. Christian, of St. Paul. Other speakers included Dr. William J. Mayo, of Rochester, Minn., a regent of the university; Dr. Elias P. Lyon, dean of the Medical School; Dr. Guy S. Ford, dean of the Graduate School, and Dr. Edward A. Meyerding, secretary of the Minnesota State Medical Association.

THE Royal Scottish Geographical Society proposes

to raise a fund for the establishment of a memorial to the late Dr. Marion Newbigin, who for thirty years edited the Scottish Geographical Society's magazine. Subscriptions are invited from friends who wish to take some part in commemorating her services to geography. These should be sent to the Treasurer, Royal Scottish Geographical Society, Synod Hall, Castle Terrace, Edinburgh.

SCIENTIFIC EVENTS

REPORT OF THE BRITISH ASTRONOMER ROYAL

AS is customary on the first Saturday in June, the Board of Visitors of the Royal Observatory assembled at Greenwich to make their annual visitation and to hear the Astronomer Royal's report. The members of the board are the presidents and six fellows each of the Royal and the Royal Astronomical Societies, the Savilian professor of astronomy at Oxford, the Plumian professor of astronomy at Cambridge and the hydrographer of the Admiralty.

The London *Times* states that in beginning his report, which referred to the year ended April 30 last, Dr. Spencer Jones, Astronomer Royal, described the counterpoise system adopted for the new reversible transit circle, the erection of which was practically completed at the end of March, in order to relieve the weight on the bearings.

In a free-pendulum clock now nearing completion, which is being presented by H. R. Fry, time will be taken directly off the free pendulum by a photo-electric method.

The sun, moon, major and minor planets and fundamental stars were regularly observed with the transit circle. The observations of the moon continued to show a decrease in the correction to the longitude given by Brown's tables, which were introduced into the *Nautical Almanac* in 1923. The correction, which was then 9 sec. of arc, fell last year to little more than 3 sec.

Regular observation of the brighter minor planets has been resumed in view of the attention recently given to the possibility of using them for fixing equinox and equator point. Further progress was made with the measurement of the photographs taken of the planet Eros at various observatories in 1930–31.

Among meteorological observations the amount of solid matter polluting the air was regularly measured by an Owens automatic filter and was found on the whole to be substantially less in the winter of 1935–36 than in the previous winter, probably because of the much smaller proportion of wind coming from a northerly direction. Gaseous pollution of the atmosphere by sulfur dioxide appeared to vary greatly from day to day.

In the worst days of January and February, in both 1935 and 1936, this pollution approached and occasionally exceeded 0.2 parts by volume in a million, but on good days less than one tenth of this amount was present. Pollution is found to be greatest on days of calm air, drifting from a northerly direction, generally accompanied by fog. It is reduced to a minimum by a strong southerly wind.

The mean temperature of the year was 50.2 deg. F., or 0.7 deg. higher than the average of the 75 years 1841–1915. The total rainfall was 26.11 in., or 1.87 in. more than the average for the 75 years 1841–1915. The wettest month was November, with 3.59 in., and the driest July, with 0.56 in.

FLOOD CONTROL

SECRETARY OF AGRICULTURE HENRY A. WALLACE has announced that problems of "up-stream" engineering in relation to flood control and land conservation will be discussed at a conference of experts from the United States and foreign countries in Washington, on September 22 and 23.

The conference will be called by a special committee appointed by President Roosevelt. Members of the committee are H. H. Bennett, chief of the Soil Conservation Service; Morris L. Cooke, administrator of the Rural Electrification Administration, and F. A. Silcox, chief of the Forest Service.

In announcing the conference, Mr. Wallace made public a letter from President Roosevelt pointing out the need for coordinating land-use principles with existing knowledge of down-stream engineering methods in federal planning for flood control and land conservation. The President's letter follows:

> Up-stream engineering will have a major part in efforts to save the land and control floods, and for that reason it offers a broad field of opportunity for the engineering profession. I am therefore in hearty accord with your suggestion that there be held an open conference on the subject in the early fall. The date might well be in proximity to that of the Third World Power Conference in September, in the hope that some of the distinguished foreign engineers attending the latter may be interested also in contributing to the proposed conference.
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> There are indications that a substantial body of technical information on the control of little waters is now available in the scattered records of American experience —federal, state and professional. The urgent problem is to bring these data together into a coordinated body of engineering knowledge so that public officials and engi-