

a life of slothful ease, and dedicated themselves and their fortune to the study of the history of the earth. Playfair and Cuvier were both teachers of other branches of science, irresistibly drawn into the sphere of geological inquiry and speculation. Of the whole gallery of worthies that have passed before us, a comparatively small proportion could be classed as in the strictest sense professional geologists, such as Werner, Sedgwick and Logan. Were we to step outside of that gallery, and include the names of all who have helped to lay the foundations of the science, we should find the proportion to be still less.

From the beginning of its career, geology has owed its foundation and its advance to no select and privileged class. It has been open to all who cared to undergo the trials which its successful prosecution demands. And what it has been in the past, it remains to-day. No branch of natural knowledge lies more invitingly open to every student who, loving the fresh face of Nature, is willing to train his faculty of observation in the field, and to discipline his mind by the patient correlation of facts and the fearless dissection of theories. To such an inquirer no limit can be set. He may be enabled to rebuild parts of the temple of science, or to add new towers and pinnacles to its superstructure. But even if he should never venture into such ambitious undertakings, he will gain, in the cultivation of geological pursuits, a solace and enjoyment amid the cares of life, which will become to him a source of the purest joy.

In this country at the present time, as Mr. David White in an as yet unpublished address, has I believe pointed out, the amateur geologist, due partly to the way in which the subject is taught, is rare and few indeed are the contributions made to the science by those who follow geology as an avocation or hobby. This is unfortunate and an improvement of this condition should be one of the major objects of the educational program of a national geological survey. The science lends itself particularly to its pursuit as a recreation by men of trained intellect who must find in the open air some relief from sedentary professions. In a country still so new as ours geologic problems lie on every hand and many of these can be solved wholly or in part without elaborate apparatus or laboratory facilities. The standards for the professional geologist should be high, but there is no necessity

that maintenance of such standards should be accompanied by a patronizing or supercilious attitude toward the work of the amateur. Rather, let the professional geologist cultivate sympathy, tolerance, and generosity toward all who are earnestly seeking for the truth; let him help by encouragement instead of deterring by disdain. There is no better evidence of a wide interest in geology than the existence of numerous amateur workers and it is decidedly to the advantage of the professional geologist and to the science to encourage in every way possible the efforts of such workers and to increase their number.

F. L. RANSOME

(To be concluded)

GEORGE MACLOSKIE

GEORGE MACLOSKIE was born in Castledown, Ireland, in 1834. He studied at Queens' University, Ireland, receiving the degree of A.B. and A.M. Later, at the University of London, he took the degrees in course of LL.B. and LL.D. He was three times gold medalist. After he had been some years in America the University of Ireland granted him the honorary Sc.D.

He was for 13 years (1861-'74) pastor of the church of Ballygoney, Ireland. During his student life and while discharging his pastoral duties he was actively interested in the study of natural history. This interest had attracted the attention of his friend and one-time teacher, Dr. McCosh, the new President of Princeton College, who called him in to occupy the chair of natural history in the recently established John C. Green School of Science, at Princeton.

In this chair, later termed biology, with unflinching devotion he served the college and university for 31 years, retiring in 1906 as professor emeritus. During this period, in addition to his teaching and executive duties, he wrote his "Elementary Botany with Student's guide to the Examination of Plants" published by Henry Holt & Company, 1883, which for several years was used in his classes. He published also a number of papers on botanical subjects, chiefly in the *Torrey Bulletin* and entomological papers, in

The American Naturalist and *Psyche*, dealing mainly with the structure of the head and mouth parts of the house fly and mosquitoes, and the tracheæ of insects.

An omnivorous reader, he kept abreast of the advances of his science and at the same time retained a keen interest in mathematical, physical and linguistic studies, publishing papers dealing with the mathematical properties of lenses, and on hyperbolic functions. His self-acquired mastery of a reading knowledge of the modern languages led him to a desire for some more universal means of communication, so that he was attracted to the Esperanto movement and became one of its early American promoters.

Bred as a theologian he was nevertheless in sympathy with the then new doctrine of evolution, and throughout his life was a firm upholder of the essential harmony of science and religion. His papers on this subject were numerous.

His retirement from the active duties of a professor did not lessen his abounding zeal for work, for he then began and carried through to completion a three-volume report on the Flora of Patagonia—a labor that might tax the energies of a much younger man.

Dr. Macloskie was true and loyal to his adopted country while cherishing with pride his Scotch-Irish ancestry. He was a man of strictest probity, affectionate, enthusiastic and impulsive; he was just and sympathetic in his dealings with his students; a most devoted and unselfish collaborator in the work of his own and other departments; loyally devoted to his friends through good and evil report; a good citizen and a Christian gentleman.

In 1896 Princeton University granted him the honorary A.M. As one of her adopted sons he served her faithfully in his life and his death comes as a loss to his former pupils and colleagues.

W. M. RANKIN

SCIENTIFIC EVENTS

THE CALIFORNIA INSTITUTE OF TECHNOLOGY

IN view of the many developments taking place in the institution, by which it is being

rapidly transformed from a college or primarily local relationships into a scientific school of national importance, the trustees of Throop College of Technology, at Pasadena, voted at their annual meeting on February tenth to change its name to the California Institute of Technology.

The developments of the recent past and those assured in the near future that have seemed to justify this action are briefly as follows:

There have been received by the institution two gifts of \$200,000 each to form permanent endowments for the support of research in physics and chemistry, respectively; and in addition \$800,000 has been given for general purposes, on condition that this endowment be increased by additional subscriptions to two million dollars.

Other gifts aggregating \$380,000 have been received for the construction of new buildings. With the aid of these funds a building for chemical instruction and research, named after the donors the Gates Chemical Laboratory, has already been completed and is occupied by the chemistry department, which includes five professors and assistant professors, two instructors, and six teaching fellows. A laboratory for aeronautical research has also been built, and investigations on airplane propellers are in progress. During the latter part of the war a laboratory for submarine detection was erected and the researches in that field are still in progress, with reference to both commercial uses and future military developments. This work will next year be transferred to the new physics building; and the war laboratory will be equipped for advanced instruction and research in applied chemistry and chemical engineering. A building for instruction and research in physics is now being planned, and is to be erected during the year. In recognition of the donation which made it possible, it will be known as the Norman Bridge Physical Laboratory. In addition, a building to serve as an auditorium and music hall, both for the Institute and for the Pasadena Music and Art Association is to be built at once upon the campus.