first full bibliographies of North American geology. To the general public he told "The Story of the Grand Canyon" so effectively that his little book bearing this title is now in its 18th edition, the successive issues totalling 138,000 copies.

Back of Darton's interpretations of geologic phenomena there is a wealth of philosophic thought. But his philosophy is expressed in terms of concrete facts rather than in terms of abstract reasoning. There are advantages in such procedure. The essential dignity of science lies in this: that it is the study of truth, immutable and eternal. Philosophy is but man's conception of the truth. Hence philosophies rise and fall, victims of the discoveries of new facts. That philosophy is best which is most firmly founded on, and most strongly buttressed by, established facts.

When facts loom so large that they obscure the philosophic structure they support, one should not hastily conclude that no philosophy is there. If the facts are firmly established, and if they are correctly interpreted, that in itself is proof that the author of these accomplishments was guided by a sound philosophy. "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy." But your philosophy is founded on the solid rock, and shall not be shaken by the winds of time.

We honor to-night a master builder, one who has wrought into the edifice of American geology some of its most beautiful and most enduring parts. We honor a master artist, one of peculiar genius. Like Powell, Dutton and other figures of the heroic age of American geology, Darton has splashed at a ten-league canvas with brushes of comet's hair, painting boldly the salient features of vast areas of our continent. Like the best of our modern masters he has etched with infinite pains the details which complete the picture. Standing between the explorers of our early years and the systematic students of to-day, linking the past with the present, Darton has had the wisdom to combine the best in both methods of research. As a result, he stands to-day, alone and pre-eminent, the acknowledged master of field technique, the greatest reconnaissance geologist of our time.

He stands alone, but not apart from his fellow workers. A host of younger men have found in his kindly interest and generous aid inspiration to new endeavor. His own interests have transcended the bounds of his geologic labors. We find him serving in his home environment as vice-president of the Alliance Française, president of the Spanish-American Atheneum, member of the Italy-America Society, the Archeological Society and of the Instituto de las Españas. To breadth of interest and understanding he has added a genial human sympathy which has bound men to him in bonds of affection: "the elements so mix'd in him that Nature might stand up and say to all the world, 'This is a man.'"

All men delight to honor such a man. At the hall of the American Geographical Society in New York City, in letters of bronze on walls of marble, Darton's name is inscribed along with the great explorers of the world. He has held positions of honor and trust in many scientific and other organizations while the rolls of honorary membership in a number of foreign societies are adorned by his name. Such recognition can not add one cubit to the stature of our honored guest. Nor is it in our power to-night to add to or detract from the high distinction he has attained through long years of unremitting labor performed with a high standard of scientific integrity. But we can stand up and say to all the world: "This is a man to whom high honor is due."

OBITUARY

SIR FREDERICK BANTING

MAJOR SIR FREDERICK BANTING died, in his fiftieth year, while engaged in carrying information on the results of medical research on war problems from Canada to England.

Frederick Grant Banting began his career in medical research with a mental equipment which enabled him to surmount all obstacles, to become Canada's foremost scientist and one of the world's great benefactors. His scientific curiosity was insatiable and his energy in the pursuit of knowledge boundless. His thorough training as a practical surgeon served him well, but his interest in the fundamental aspects of all medical problems was never dimmed.

Banting was a good student, but he stood apart from his fellows by virtue of his critical interest in the physical and chemical bases for the current medical teaching rather than for his ability to secure high marks in examinations. He was interested in the practical aspects of medical work and preserved throughout his career a compelling desire to relieve the suffering of individual patients. His experiences as a battalion medical officer made a lasting impression on his mind. Again and again, even in the busiest phases of the insulin investigations, he found time to set a fracture or perform a surgical operation on one of his army comrades or on some patient who was in need. His predominant thought, even in his last hour, would be to do his utmost to relieve the suffering of others.

In the insulin investigations, which made his repu-

tation, he demonstrated many of the outstanding traits of his character. He was determined that his idea should have an adequate trial. The difficulties were surmounted with a dogged perseverance which would have achieved results in any line of endeavor. His determination was a predominant factor in the success which was secured. His comradeship when he was an unknown young investigator and his generosity in sharing the credit of the discovery of insulin have placed the writer forever in his debt.

After the discovery of insulin he interested himself in diabetic patients for a time but soon returned to his scientific investigations. With other colleagues he made determined assaults on the walls of ignorance which obscure our view. He contributed to our knowledge of the suprarenal cortex. He established a reputation for himself in cancer research. His laboratory facilitated the studies on silicosis, which may have important practical applications. He was interested in and helped every young man who appealed to him for an opportunity to investigate medical problems.

A detailed account of Banting's contributions to medicine will undoubtedly appear in many medical journals, but the time has not yet arrived when the significance of these findings, which his genius for organization has made possible, can be accurately appraised. He was always interested in the organization of medical research, but from the time he realized that war was imminent, he threw himself heart and soul into this work and so fired the imagination of his colleagues and non-medical friends in all parts of Canada that the torch is sure to burn brightly and to illuminate our general war effort. The present activity in the field of aviation medicine in Canada is due largely to him. It is possible that this, his last work, will rank among his greatest achievements.

Banting deeply appreciated the whole-hearted cooperation unstintingly given by many of our American medical colleagues since the outbreak of the present war. He had many personal friends in the United States and often discussed the first American cases which were treated with insulin in Toronto and the physicians with whom this work brought him so closely in contact.

In spite of his great modesty and somewhat shy disposition he had a great capacity for friendship. His activities on behalf of the National Research Council of Canada and his supreme effort to organize medical research for war purposes made him a host of new friends and admirers, but he was always loyal to his medical classmates of 1917 and to those whose advice and help he had received in his earlier struggles.

Banting was true to his philosophy of life which he, at one time, described in the following simple and effective words:

> It is not within the power of the properly constructed human mind to be satisfied. Progress would cease if this were the case. The greatest joy in life is to accomplish. It is the getting, not the having. It is the giving, not the keeping.
>
> I am a firm believer in the theory that you can do or be anything that you wish in this world, within reason, if you are prepared to make the sacrifices, think and work hard enough and long enough.

C. H. BEST

UNIVERSITY OF TORONTO

LEVI WALTER MENGEL

ON February 3, 1941, at the age of seventy-two years, Dr. Levi W. Mengel died suddenly of a heart ailment. His passing ended a life dedicated to the establishment and enlargement of a public museum and art gallery for the school-children and citizens of Reading, in devotion to which he forgot or neglected all personal ambitions. He lived, fortunately, to accomplish that feat, for the museum he founded has, through his efforts, become perhaps the world's finest for a city of its size.

Through his activities, travels and correspondence, Dr. Mengel was known throughout the world as an entomologist, collector and museum man. His collection of butterflies ranks with the largest; the assemblage of his specialties, *Erycinidae* and *Morphos,* is acknowledged to be without superior anywhere. He had also built up a large collection of minerals, of stamps, of coins and of postcards. However, these list only the material maintained by himself to the very end; no mention can here be made of the library, entomological, zoological, anthropological, commercial and art specimens accumulated and given by him, years ago, to form the foundations for the institution which he so long directed and so dearly loved.

It was his custom to work without interruption for several years and then take an extended journey, usually for the purpose of consulting some of the world's great collections of Lepidoptera. In this manner he became familiar with the great specialists in his favorite field, and maintained correspondence with them over many years. His collection contains many specimens obtained in exchange from such well-known collectors as Alfred Russel Wallace, Grand Duke Nicholas of Russia and Baron Rothschild.

He was very active in the field of education. One of the reasons for his struggle for this museum was his interest in providing, for the boys and girls of Reading, a place where they could see and examine the objects about which they were taught in the schools.