Except in most exceptional circumstances, such as the progressing death list of a disaster, the modern newspaper insists upon the full name and initials of the news personalities whose doings or statements it reports.

In scientific articles, addresses, reviews and reports it is common practice to refer to scientific colleagues by their last name only. This is particularly the case abroad, especially in France. When scientists were few this practice may have been satisfactory, but, with the growing multiplicity of research and its numerous practitioners, a single last name citation is often ambiguous.

It is not yet necessary to follow the practice of the Library of Congress on its catalogue cards and give the date of birth as well as the full name, but even that practice in some cases would improve our historical horizon.

WATSON DAVIS

SCIENCE SERVICE

SPECIAL CORRESPONDENCE

COOPERATIVE GEOLOGIC RESEARCH NEAR RED LODGE, MONTANA

RESULTS of large scientific interest and possibly of very considerable practical importance have been yielded by the work of the geological investigators who operated during the past summer in the region near Red Lodge, Montana—that is to say, along the northeastern border of the Yellowstone Park or Beartooth plateau. Announcement has already been made of the discovery by Professor Edward Sampson, of Princeton, of the similarity in origin of the chromite deposits of the Beartooth area to those of South Africa—heretofore believed to be unique, and also of the finding near Red Lodge of dinosaur egg fragments by Dr. G. L. Jepsen and E. J. Moles, of the Princeton Scott Fund Expedition. These fossils are the first of their kind obtained in North America, and rendered doubly interesting because of recent paleontological prominence given to this region by the discovery of many primitive mammals by Dr. J. C. F. Siegfriedt. A tooth of one of these mammals was pictured and described in the *Literary Digest* as possibly belonging to the oldest known form in man's ancestral line.

An informal preliminary report on the party's study of the great fracture systems in the earth's crust limiting the eastern border of the Yellowstone-Beartooth plateau has been made by Dr. E. L. Perry, of Williams College, and Professor Erling Dorf, of Princeton, has also presented a similar statement regarding the very perfect fossil floras which had been located by Dr. Siegfriedt in beds just below those yielding mammal remains at the Eagle Coal Mine.

The problems of the physical geography and physiography of the region—already partially studied by Dr. Arthur Bevan (now state geologist of Virginia) and by Dr. W. C. Alden, of the U. S. Geological Survey—were further studied last summer by Professor Nevin M. Fenneman, head of the department of geology and geography of the University of Cincinnati and formerly chairman of the division of geology and geography of the National Research Council, and a report is being prepared by Professor Fenneman covering his findings. A detailed map of the river-terrace system around Red Lodge has also been prepared by J. H. Breasted, Jr., a Princeton undergraduate. Reports covering special phases of the chromite deposits are being worked on by E. B. Cartmell, of Yale, and by J. S. Vhay and J. W. Peoples, of Princeton, and the volcanic and intrusive rocks of an area near the Valley Ranch southwest of Cody, Wyoming, are also being studied by J. T. Rouse.

The splendidly exposed sections of marine Cambrian strata now exposed along the mountain uplift were examined during the summer by Dr. C. E. Resser, of the U. S. National Museum, and by Dr. Endo, of Manchuria—Dr. Resser's work being in continuation of his comprehensive studies of the Cambrian of the west which he began as assistant to Dr. Charles D. Walcott, late secretary of the Smithsonian Institution. Professor Dorf and Gordon K. Bell, Jr., of Columbia University, also made a reconnaissance study of the Cambrian, Ordovician and Devonian beds exposed in Beartooth Butte on top of the plateau, and 8,000 feet of Cretaceous-Eocene sandstone and shale beds exposed between the Dry Creek oil and gas field and the Bear Creek coal mines and fossil mammal locality were measured by W. C. Keith, Jr., and G. B. Hulett, of Princeton, as a basis for structural work and as a background for paleontologic interpretations.

Cooperative relations in support of effective, scientific research—both within and without the State of Montana—have been most gratifying and cordial. The Northern Pacific Railway has cooperated most helpfully. Governor J. T. Erickson, of Montana, tendered the assistance of his administration to the party; the officials of the state university, school of mines and Eastern Montana Normal School joined in

planning the work, and the Montana Association, the Billings Commercial Club and the research committee specially appointed by Red Lodge are aiding in arranging for future work. Through Dr. Francis A. Thomson, director of the Montana Bureau of Mines and Geology, the cooperation of the U. S. Geological Survey and the U. S. Army has been secured, respectively, for the topographic mapping and airplane photography of the region to be studied, and the U. S. Coast and Geodetic Survey has promised to extend its chain of gravity stations eastward from Yellowstone Park across this newly mapped area in order to ascertain how the geological and geophysical evidence indicative of the origin of mountain uplift may be harmonized.

Inquiries have been received from Wyoming sources as to the possibility of the work being extended southward into the Cody territory, and this possibility is under consideration at the present time.

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SCIENTIFIC BOOKS

A History of Science and its Relations with Philosophy and Religion. By WILLIAM CECIL DAMPIER DAMPIER-WHETHAM. Cambridge, at the University Press. xxii + 514 pp., 14 figs. in text. 1929. Price 18*s*.

To survey the universe from the electron and the cosmic ray to the gene and conditioned reflexes is an intellectual labor truly Herculean in its order of magnitude. But to trace, coordinate and place in their most significant relations man's ever-changing and his so recently greatly enlarged concepts of nature and the discoveries from which they have sprung is a task for which no ancient galaxy of gods has an appropriate prototype. It is Einsteinian in its proportions. The author of this "History of Science" has attempted this survey and analysis, chiefly, he tells us, for his own satisfaction and amusement, but certainly for the intellectual orientation of all who seek in the past an interpretation of this our own era of achievement and of change.

This is more than a history of the sciences or of science. Its central theme seems to be man's continuing efforts to understand and interpret nature and the interaction of his concepts thus derived with philosophy and religion

> Till out of chaos comes in sight
> Clear fragments of a Whole;
> Man learning Nature's ways aright,
> Obeying, can control.

To our historian science is more than natural science. It is the ordered knowledge of natural phenomena and also the rational study of the relations between the concepts in which those phenomena are expressed. Philosophy may protest the encroachment.

The work falls into ten chapters. The first four proceed chronologically through the science of the ancient world, the Middle Ages, the Renaissance and the Newtonian Epoch. Thenceforward the treatment separates the physical from the biological sciences, and segregates the interrelation of science and philosophy. Chapters V and IX treat of nineteenth century physics and the new era in physics, respectively. Chapters VI and VIII are concerned with nineteenth century biology and recent development in biology and anthropology. Chapters VII and X give the syntheses of nineteenth century science and philosophy and scientific philosophy and its outlook.

This is no place to construe the argument, much less to criticize the selection or the treatment of the material; both have the horizon and the *élan* to be expected from a scion of the illustrious explorer. The style is lucid, forceful and vigorous. The treatment is comprehensive, judicious and eminently free from bias. The aim is clearly synthetic throughout, and to this end the presentation of the separate scientific fields and of biographical aspects is quite subordinated.

Priority in formulation of an idea or in discovery does not seriously embarrass our historian. "In science 'being right is no excuse whatever for holding an opinion which has not been based on an adequate consideration of the facts involved in it.'"

Noteworthy in this survey is the selection and treatment of significant figures in the onward march of ideas: to alphabetize a few, Aquinas, Aristotle, Francis and Roger Bacon, Bateson, Bergson, Bishop Berkeley, Bernard, Berzelius, Bohr, Boltzmann, Boyle, Burt, Copernicus, Crookes, Darwin, Democritus, Eddington, Einstein, Foster, Galen, Galileo, Gauss, Haeckel, Helmholtz, Van't Hoff, Hume, Huxley, Huygens, Jeans, Kant, Kelvin, Kepler, Laplace, Lavoisier, Leibnitz, Leonardo da Vinci, Liebig, Lucretius, Lyell, Maxwell, Mendel, Mill, Millikan, Newton, Pasteur, Plato, Russell, B., Rutherford, Sarton, Singer, Thomson, J. J., Thomson, W., Voltaire, de Vries and Whitehead.

In a treatise of the scope of this work some deflections of emphasis and preference in selection result inevitably from propinquity and limitations in con-