of the date of probate. Mrs. Lillian Baker Warren receives the income from the residue for life.

THE Elizabeth Clay Howald Scholarship has been endowed by the late Ferdinand Howald, an alumnus of the Ohio State University, in memory of his mother, Elizabeth Clay Howald. Appointments will be made annually and the scholar will receive an honorarium of $3,000 paid in twelve equal monthly installments. Any person who has shown marked ability in some field of study and has in progress work, the results of which promise to be an important contribution to our knowledge, shall be deemed eligible to appointment. If the scholar has ever been a student of the Ohio State University or a member of the university staff, he may carry on his investigation either at the Ohio State University or, subject to the approval of the Graduate Council, elsewhere. If the scholar has never had any connections with the Ohio State University, he must carry on his investigation there. Prospective candidates may secure application blanks, which must be filed not later than March 1, by addressing the Dean of the Graduate School, the Ohio State University. The appointment will be made on April 1 and the term of appointment will begin on July 1.

PROFESSOR MARSTON T. BOGERT writes: "Thanks to the generosity of interested friends, the Organic Laboratories of Columbia University have received recently research funds as follows: (1) From E. R. Squibb & Sons, 745 Fifth Avenue, New York, for investigations in the quinazoline series. (2) From the Ella Sachs Plotz Foundation, Collis P. Huntington Memorial Hospital, Boston, Mass., for researches on the synthesis of certain polycyclic hydrocarbons. (3) From the Committee on Therapeutic Research, of the Council on Pharmacy and Chemistry, American Medical Association, to assist in studies on the chemistry and pharmacology of the quinazoline group. With this support, work is actively under way in these fields, as well as in many others, and the results will be reported from time to time in our chemical periodicals."

DISCUSSION

THIRD SCARRITT EXPEDITION OF THE AMERICAN MUSEUM OF NATURAL HISTORY

THE activities of the first two Scarritt Expeditions, both to Patagonia, have previously been reported in this journal.[1] Twenty-seven papers (reference to which will be supplied on request to the writer) have been published on the Patagonian work. Most of the fossils collected on the second expedition have now been prepared, and their study is in progress, as is also the final report on the early mammalian faunas of South America.

The field work of the Third Scarritt Expedition, just completed, has continued the general program of these expeditions and of the American Museum of Natural History for research on early Tertiary, particularly Paleocene and Eocene, mammals of the world, this time in the Paleocene Fort Union Formation of the Crazy Mountain Field, Wheatland and Sweetgrass Counties, Montana. This work is due to the continued support and interest of Mr. H. S. Scarritt, of New York, with the cooperation of Mr. and Mrs. Fenley Hunter, of Flushing.

The party was in the field from June 4 to September 29, 1935, and consisted of the writer, Mr. A. C. Silberling, and a cook and helper for the full period. Mr. and Mrs. Hunter worked with the party during June, Dr. Walter Granger from August 8 to September 10, Mr. Albert Thomson from August 20 to the end and Mr. H. S. Scarritt from August 28 to August 31. Mr. F. Trubee Davison and party also visited the camp and made possible an aerial reconnaissance. Mr. Ray Wyn and numerous other local people cooperated in the most helpful way.

The success of this work is very largely due to Mr. Silberling, of Harlowton, Montana, well known for his work in this and other fields during the past thirty-five years. The localities worked were all discovered by him, and his knowledge and experience prevented lost motion and greatly facilitated all the work.

Forty-eight localities were thoroughly prospected, but the great bulk of the collections obtained is from two quarries. One, the Gidley Quarry, was discovered by Mr. Silberling, in 1908, and previously worked by him and by the late Dr. J. W. Gidley for the United States National Museum. Equally important is a new quarry, the Scarritt Quarry, recognized as a promising prospect by Mr. Silberling some years ago, but worked as a quarry this year for the first time.

The collection includes 635 jaws and partial skulls of mammals and about 900 isolated teeth, limb-bones and other less important specimens of fossil vertebrates. It is thus one of the largest extant collections of Paleocene mammals, and probably much the largest ever made in a single field season. The material has not yet been prepared or identified, but it apparently includes about 75 species of fossil mammals, a number of which appear to be new, and thus gives a remarkably complete picture of mammalian life in the Middle Paleocene.

Several different orders and many families of mammals are included, but greatest interest attaches to the Primates, which are the oldest known from anywhere

[1] SCIENCE, 80: 2070, 207–208, August 31, 1934.

in the world.[2] Preliminary descriptions of some of these from Mr. Silberling's previous collections were published in 1923 by Dr. Gidley. The new collection greatly adds to the known material, both in number and in variety, and also includes considerably better specimens than any previously discovered. It should prove of the greatest value for the study of the origin and early differentiation of the primates.

It is estimated that preparation and study of this collection will take at least three years. In the meantime work is going forward rapidly on the United States National Museum collection, a study started by Dr. Gidley and after his death placed in the hands of the present writer by the authorities of that institution. In order to prevent long delay and to ensure proper priority for earlier work, this study will be completed and published without waiting for the new collection to be available.

GEORGE GAYLORD SIMPSON
THE AMERICAN MUSEUM OF NATURAL HISTORY

CASUALTIES AMONG ANIMALS ON MOUNTAIN ROADS

FROM time to time in the past few years there have been published lists of birds and mammals seen lying in the roads, killed by automobiles. These lists have been from the eastern and central states, and the majority of victims seem to have been birds. This past summer, 1935, I was in the mountains of Colorado from June 29 to July 25, and recorded such mammals and birds as were seen lying in the road.

My itinerary was as follows: From Colorado Springs through Canon City and Salida, across Monarch Pass down to Sargent and on to Gunnison. From Gunnison 12 miles north to Almont, and thence up Taylor River to Red Mountain Creek. Returning we went down Taylor River as far as the road across the Divide to East River at Jacks Cabin; thence north to Crested Butte. From this place we made trips to Gothic and Lake Brennan, at Irwin, and were about here until July 17. Then we returned to Gunnison, recrossed Monarch Pass to Salida, whence we went north as far as Chalk Creek, which stream we ascended as far as the old mining camp of Romley. From here we returned to the main road, went to Buena Vista and north to Half Moon Creek, which we ascended for several miles and where a few days were spent. Leaving here on July 25 we returned to Buena Vista, and thence went over Trout Creek Pass, and across South Park to Colorado Springs. Total mileage, 760.

I have purposely given this itinerary in considerable detail, though on some parts of the road no, or but very few, victims were seen.

To my companion, Robert C. Hill, of Denver, belongs the greater part of the credit for this list. He did all the driving and thus had to keep his eyes on the road, while my own eyes wandered far afield at times. The list follows:

Mammals: Cottontail rabbit, probably mostly *Sylvilagus nuttalli pinetis*, 8; white-tailed jack rabbit, *Lepus townsendi townsendi*, 4; Say's ground squirrel, *Callospermophilus lateralis lateralis*, 12; Gunnison's prairie dog, *Cynomys gunnisoni gunnisoni*, 56. Of these 29 were seen on July 1 along the 37 miles from Sargent to Gunnison, and 23 when returning from Gunnison to Sargent on July 17; wood rat, *Neotoma* sp., 1; mouse, sp.??, 2; skunk, *Mephitis mesomelas varians*, 1; house cat, 1; total mammals, 85.

Birds: Magpie, 1; blackbird, sp.?, 1; swallow, sp.?, 2; robin, 1; hen, 1; unknown bird, 1; total birds, 7.

Reptiles: Garter snake, 3; rattlesnake, 1.

The great mortality among the prairie dogs along the Sargent-Gunnison stretch of road is explained by the fact that there are many of the animals there. It would seem that when a car comes along the prairie dog is usually on the opposite side of the road from its hole, and tries to get home ahead of the car. Sometimes it makes it, frequently it does not. Many of the dead prairie dogs seen were young animals.

EDWARD R. WARREN
COLORADO SPRINGS, COLO.

FORMATION NAMES IN THE MACKENZIE RIVER VALLEY[1]

THE pioneer map of the geology adjacent to the Mackenzie River by R. G. McConnell[2] was published in 1890. Thirty-one years later a report with two maps by E. M. Kindle and T. O. Bosworth[3] divided the Paleozoic sediments of the Norman-Good Hope area of the Mackenzie River into formations and indicated their areal distribution in the vicinity of the river.

It has been found that two names applied in this paper to previously undifferentiated formations were preoccupied by other formations. One of these names, Lone Mountain dolomite, was applied to an 1800 section of Silurian dolomite capped by Devonian limestone. The name, Lone Mountain limestone, had been previously used by Arnold Hague[4] for an Early Silurian formation[5] in the state of Nevada. Since there is no evidence that the Mackenzie River and the Nevada formations represent identical horizons, the

[1] Published with the permission of the Department of Mines, Canada.

[2] Report on an Exploration in the Yukon and Mackenzie basins, N.W.T. Ann. Rept. Geol. Surv. Can., Vol. VI, pp. 5D–163D (1890), 1888–89.

[3] Oil Bearing Rocks of Lower Mackenzie river valley. Summary Report, 1920, Pt.B., pp. 1B–72B, 1921.

[4] U. S. Geological Survey, 3d Annual Report, pp. 253, 262, 1883.

[5] *Bull. U. S. National Museum*, 92, p. 1516, 1915.

[2] Dr. G. L. Jepsen, of Princeton University, has recently discovered similar forms of approximately equal, but apparently not greater, age in Wyoming.