teur naturalists and nature students, and always attached the greatest importance to the teaching of nature study in the elementary schools. His colleagues and friends believe that the form of recognition which would have been most congenial to his feelings would be the provision of assistance to the authorities of the council schools in his home (Loughton) in furthering the study of natural history. With that object, a fund has been opened—the Bacot Memorial fund.

AN international memorial apicultural library dedicated to the memory of Dr. Charles C. Miller, a famous American beekeeper, of Marengo, Illinois, has been established at the University of Wisconsin. A sum of $1,500 to $2,000 has been donated by beekeepers from all parts of the world, and the interest from this sum will be used in making additions to the library. Many hundreds of volumes of journals and books have been donated by beekeepers and scientists, and it is the plan of the committee in charge to make this one of the best apicultural libraries in the world. The library is to be dedicated at a conference of beekeepers to be held at Madison, Wisconsin, during the week of August 13 to 18. Many prominent authorities on the subject of apiculture will attend the meeting and give addresses on some phase of this subject. On Saturday of that week, a pilgrimage by automobile will be made from Madison to Marengo, Illinois, where the dedication ceremony will be conducted and a memorial tablet placed in the church.

BURT P. GARNETT, who has been technical manager of the A. C. S. News Service and managing editor of the News Edition of the *Journal of Industrial and Engineering Chemistry*, has launched a news syndicate under his own name in Washington. This work will consist of the preparation of articles for the newspapers and magazines on technical and scientific subjects. Hereafter the publicity work of the Society will be in charge of James T. Grady, director of the department of public information, Columbia University. The managing editorship of the News Edition has been entrusted to Dr. Robert P. Fischelis, dean and professor of pharmaceutical chemistry at the New Jersey College of Pharmacy, Newark, N. J. Dr. Fischelis has been a member of the staff of *Industrial and Engineering Chemistry* for several years.

OWING to the death of Dr. Harold C. Ernst, Boston, editor of the *Journal of Medical Research* since 1896, that journal has become the property of the American Association of Pathologists and Bacteriologists and will be published in the future by a board of editors appointed by the council of the association. It will be devoted to the prompt publication of original observations and investigations in the field of pathology. Communications should be addressed to the editor-in-chief, Dr. F. B. Mallory, Boston City Hospital, Boston.

THE National Academy of Sciences will hold its autumn meeting at Cornell University in November.

UNIVERSITY AND EDUCATIONAL NOTES

THE University of Denver has received the largest single gift in its history in the form of real estate property valued at $1,500,000 from James H. Causey, Denver business man and former partner of Governor Sweet, of Colorado. Mr. Causey has placed no restrictions on the use to which the gift shall be put, although in a letter to the board of trustees he stated that he would like to see the income used for "the creating of international, social and industrial good will."

TUFTS College dedicated on June 16 the new chemical laboratory built at a cost of $300,000, which will be ready for use in the fall. Addresses were made by Professor Arthur B. Lamb, of Harvard University, and by Professor Charles A. Kraus, of Clark University. Dr. Arthur Michael, formerly professor of chemistry at Tufts, was the guest of honor. In addition to this new equipment, the college has just completed its campaign for a $1,000,000 endowment fund.

DR. W. A. HAMILTON, professor of mathematics at Beloit College, and Dr. E. S. Haynes, professor of astronomy, have resigned their positions in protest at the action of the board of trustees, who forced the resignation of Professor C. L. Clarke, dean of men at Beloit, in order to make way for the appointment of another member of the faculty to the deanship. Both Dr. Hamilton and Dr. Haynes were members of an administrative committee which has been in charge of the college since the resignation of President M. A. Brannon last winter.

DR. HENRY D. JUMP, Philadelphia, has accepted the chair of applied therapeutics in the Woman's Medical College. This fills one of the vacancies caused by faculty resignations when the Board of Corporators refused to reappoint Dr. Alice Weld Tallant to the chair of obstetrics at the college.

HERBERT S. HADLEY, formerly governor of Missouri, has been elected chancellor of Washington University (not of the University of Missouri as was incorrectly stated in last week's issue of SCIENCE). Dr. Hadley has been professor of law in the University of Colorado since 1917. He succeeds Dr. Frederic A. Hall, formerly professor of Greek, who became acting chancellor when Chancellor David F. Houston became secretary of agriculture, and was elected chancellor in 1917.

AT the University of Minnesota, Associate Professors Richard M. Elliott, William S. Foster and Donald G. Paterson, of the department of psychology, have been promoted to the rank of professor. Dr. Charles Bird has been promoted to be assistant professor of psychology.

DR. ISRAEL MAIZLISH has been appointed instructor in physics at Lehigh University.

DR. H. S. RAPER, of the University of Leeds, has been appointed professor of physiology at the University of Manchester.

DR. R. J. S. MCDOWALL, lecturer in experimental physiology and experimental pharmacology at Leeds, has been appointed professor of physiology at King's College, London.

DISCUSSION AND CORRESPONDENCE

MARINE WILCOX IN MEXICO

RECENTLY, the East Coast Oil Company, S. A., under my direction, drilled a deep test on Idol Island, which is in the Tamiahua lagoon about sixty miles south of Tampico. The location was made on what we hoped was the extension of one of the producing anticlines to the south. When oil in commercial quantity was not found at expected depth, the well was continued for exploratory purposes. The samples were carefully taken and the results from their study are of great interest and we hope to publish them shortly. In this notice it is only intended to discuss a single horizon found there. The method used in examination of samples was that first developed in our laboratory at Houston and described in a paper read before the Paleontological Society at Boston in 1921. This method has now come into general use in the Gulf Coast region and is giving excellent results. It is based, primarily, on occurrence of foraminifers either as individuals or in faunules, and we find it about as reliable in use as is the case with many molluscan faunas.

In the Idol Island well the samples from 1268 to 1800 feet showed the same assemblage of forms found in surface material taken near the top of the Alazan (Jackson) beds, while those from 1800 to 2500 correspond with the forms found in the Tantoyuca or lower Alazan. At 2500 feet there was a break evidenced by both lithologic and faunal changes. Between 2500 and 4200 feet the foraminiferal fauna is entirely new so far as we are aware. Apparently, this formation in its marine foraminiferal phase does not outcrop at the surface in Mexico. At about 4200 feet there was another change of material as the drill entered the Papagallos, and this carried the very characteristic fauna which we have been able to recognize in every sample of surface outcrop of this formation which we have had opportunity to study.

We had, therefore, in this well about 1700 feet of Eocene material between the known Jackson and known Cretaceous, the exact correlation of which we were unable to make other than that it was probably the coastal representative of some part of the Chicontopec of the interior region.

Within the last few days a series of samples has been received from a well in southern Angelina County, about one hundred miles north of Houston. The section as shown by these samples is almost entirely marine and generally highly fossiliferous.

The samples began at 930 feet. From that depth to 1127 the fauna is typically Jackson. There was then a break in samples to 2631 feet, below which the fauna was Claiborne in age. At 2800 feet the Queen City beds were found as non-fossiliferous sand 200 feet in thickness. The sample from 3003 feet was a core, highly fossiliferous. The foram fauna, which is abundant, contains only a single species found in the Claiborne, the remaining forms being absolutely different from those of that stage and from the Midway fauna, of which we have at least 100 collections. It is undoubtedly Wilcox in age. While the surface exposures of Wilcox are often fossiliferous, we know of none in which forams have heretofore been found. It is certainly the first discovery of such beds in Texas, and is of especial interest to us also in the fact that this fauna is practically identical with the one in the Idol Island well between 2500 and 4200 feet and especially with the forms below 3500 feet. The Texas fauna is more varied in genera and species, doubtless because it is a near-shore phase, while that of Mexico was laid down in deeper water. However, the dominant forms are the same in both and are not known in other formations in this region so far as we are aware.

A report on the geology of the Idol Island well is in preparation, which will give the details of which this is a brief summary.

E. T. DUMBLE

HOUSTON, TEXAS

BEHAVIOR OF THE THRESHER SHARK

NONE of the literature within my reach gives definite information as to the use of the extremely long, slender tail of the thresher shark (*Alopias vulpes*), although several writers refer to the general notion that it is used to frighten schools of fish in order to make them huddle close together. For that reason it seems to me that many non-specialists among readers of SCIENCE may be as much interested as specialists in a record of a recent observation near the end of