

most painter in the very specialized field of paleontological restorations, is responsible for all the paintings. Museum authorities state that in them Mr. Knight has performed some of his most notable work.

The paintings are in two sizes, the largest being 25 by 9 feet, and the others 11 by 9 feet, being thus designed to form a continuous series about the walls of Ernest R. Graham Hall. Twenty-five previously completed were placed on exhibition and announced at various times during the past five years as they came from the artist's studio.

Of the three final paintings, one depicts the primitive hoofed animals known as Uintatheres and the four-toed horse called Orohippus which lived approximately 55,000,000 years ago; another shows flying reptiles, primitive birds and small dinosaurs of 175,000,000 years ago; and the third illustrates primitive African reptiles of the Permian age, some 215,000,000 years back.

Other subjects illustrated in the complete series include the following: The cooling earth before life began; the beginnings of the lowest orders of life; a sea beach of Ordovician time; a coral reef which existed in Silurian time on the present site of Chicago; North American reptiles of Permian time; a forest of Devonian time; large flying and marine reptiles of Jurassic time; swimming reptiles; armored dinosaurs; plant-eating dinosaurs; horned and carnivorous dinosaurs; egg-laying dinosaurs; duck-billed and crested dinosaurs; titanotheres; primitive whales; early camels and suillinos; early elephants and rhinoceroses; giant kangaroos and wombats; New Zealand moas; South American ground sloths and armadillos; saber-tooth tigers and vultures; mastodons; cave bears; mammoths and woolly rhinoceroses, and the great Irish deer.

The restorations on canvas are intended to show how prehistoric creatures are believed to have appeared when living, as indicated by careful scientific studies of fossils. In the work the artist has had the advice of Dr. Oliver C. Farrington, curator of geology at the museum, and also of many other scientists in other institutions. The series as a whole represents one of the most extensive and elaborate attempts ever made to reconstruct the prehistoric world, and is expected to be of great educational value.

COUNTY HEALTH DEPARTMENTS

"APPROXIMATELY 600 county health departments should be in operation throughout the United States before the close of 1931," Acting Assistant Surgeon Fred T. Foard, of the Public Health Service, states in a recent issue of "Public Health Reports" as reported in the *United States Daily*.

The movement for full-time county health departments throughout the country has made great progress

during the nineteen years since the first full-time unit was established on July 1, 1911, in the state of Washington.

About 24 per cent. of the rural population is now being served by a health service that is reasonably effective, but in which there is still room for improvement. There are about 3,000 counties in the United States in which full-time county or district health service is applicable. The development of this tremendous field in the future can take place only as fast as personnel can be trained to take charge of the individual units.

With so great a demand for trained personnel during the next ten or twenty years, and with the many added responsibilities which are being incorporated into the public health program in increasing numbers each year, the public health official must be progressive if he would successfully meet the situation. The time when the political appointee can expect to be tolerated in the public health field without progressing with the movement is about past. The people the country over are very rapidly coming to know what the prevention of disease and the promotion of the public health mean in a literal sense.

They realize its importance both from the standpoint of the prevention of unnecessary suffering and death and from the standpoint of dollars and cents saved. Public sentiment, therefore, is demanding higher standards and more efficient health-protective service than could be given a decade ago, when public health appointments were made primarily to fulfil political obligations and, perhaps, secondarily, to the lowest bidder for the position.

Since the full-time county health department movement started a little less than twenty years ago, the national death rate from all causes has dropped from a little more than 14 per 1,000 population to 11; the tuberculosis (respiratory) death rate has dropped from 138 per 100,000 population to 68; the infant-mortality rate has been reduced from 129 per 1,000 children born to 68; the typhoid fever rate has been reduced 80 per cent., and the diphtheria rate has been reduced about 65 per cent. in the same period of time.

With such an enviable record to look back upon the public health field has greater progress to look forward to and to work for in the future. Although many of the public health executives are still handicapped by lack of funds to carry on rapidly expanding programs, it is nevertheless true that the health officer who possesses the qualifications of leadership, statesmanship and organization ability can frequently overcome handicaps which would otherwise completely retard his progress. The Public Health Service should carry on with ever-broadening viewpoints of the rapidly growing and fascinating field of public health

administration. The old adage "There is more in the man than there is in the land" is just as true of the field of public health as it is in farming, or in any other line of endeavor.

THE BEIT MEMORIAL FELLOWSHIPS FOR MEDICAL RESEARCH

ACCORDING to the *London Times*, a meeting of the trustees of the Beit Memorial Fellowships for Medical Research was held on July 14, for the election of fellows and the presentation of the annual report of the honorary secretary, Professor T. R. Elliott.

In the report of last year a review was given of the work of the Beit Memorial Trust in the first twenty years since its foundation. The close of that year marked the period that had been chosen for the review with a sharper line, by the death on December 8 of the founder of the trust, Sir Otto Beit. The founder's generous resolve to perpetuate the memory of his brother, Mr. Alfred Beit, by augmenting more than fourfold the gift which the latter had wished to make for the progress of medical studies in the University of London did not conclude with the endowment by £210,000 of the trust. As chairman of the trustees, Sir Otto devoted to the very end of his life the closest thought to every step that might advance the aims of the foundation, and he showed the keenest interest and pleasure in marking those successes in the advance of medicine by research which have been achieved by the most distinguished of the Beit Fellows. His sense of service to the trust that he had created gave an example that will not be forgotten.

The resignation of Sir Charles Martin and Sir James Kingston Fowler was announced and the appointment of Sir John Rose Bradford, who in 1909 was chiefly responsible for the advice that led to the trust being guided to the creation of fellowships rather than to other purposes, and who served for twelve years as an original member of the advisory board. Sir Alfred Beit has consented to serve with them in the place of his father, Sir Otto Beit. Dr. J. C. G. Ledingham, F.R.S., now director of the Lister Institute, who will serve in the place of Sir Charles Martin, and Dr. P. P. Laidlaw, F.R.S., known for his work on vaccination for dog distemper, have also been elected members of the advisory board.

The number of fellows at present working on the foundation, excluding those reported for election, is twenty-three. The report states that the list of places recognized for research has long ago been widened beyond the limitation suggested by the first idea that work would be done chiefly in the laboratories and schools attached to the University of London, and each year more and more fellows are being permitted for special purposes to work for a year abroad. The fellows elected choose their own problems for research, and no attempt is made by the board to select a subject or appoint a group to investigate it.

It is pointed out in the report that the aim of the fellowships is to start a man on the career of research, and the fruits of his work can hardly be expected to mature during that relatively brief tenure. It is to the after-careers that the trustees look for proof that the advisory board has guided them well in the selection of fellows. Last year's report gave a comprehensive review of the careers of the fellows since the foundation of the trust. During the present year Dr. C. H. Lambie, who held a fellowship from 1923 to 1926, has been appointed to a new whole-time chair of medicine at the University of Sydney, New South Wales. Dr. D. Keilin, F.R.S., has been chosen for the directorship of the Institute for Parasitology at Cambridge, to which he was first appointed to work as junior Beit fellow in 1920, and where he remained throughout the fourth year and senior fellowships for a total period of seven years' research. He now controls the laboratory at which his work in England began.

Besides six junior fellowships valued at £400 a year, one senior fellowship valued at £700 a year was awarded to Dr. F. R. Winton, to continue his work in the pharmacological laboratory of University College, London, on the tonus of plain muscle, on the blood pressure in the glomerulus of the kidney, and on the effect of drugs on kidney secretion. A fourth year fellowship valued at £500 a year was given to B. H. C. Matthews, to continue his work in the physiological laboratory, University of Cambridge, on the analysis of sensory nerve impulses by electrical records obtained with the delicate oscillograph which he has invented.

SCIENTIFIC NOTES AND NEWS

DR. HARVEY CUSHING, head of the department of neurological surgery at Harvard Medical School, has received an honorary degree from the University of Berne at the opening of the International Congress on Neurology which met recently in Berne, Switzerland. Dr. Cushing read a paper on his experiences in two thousand brain operations.

DR. A. S. HITCHCOCK, custodian of grasses at the U. S. National Herbarium, has been elected a corresponding member of the German Botanical Society.

DR. JOSEPH B. WOLFFE, associate professor of cardiology in the school of medicine and the hospital of Temple University, was honored on September 1 by members of the staff of his heart clinic, who enter-