

OBITUARIES

Sir Peter Chalmers Mitchell, F.R.S.

Quastel's opinion, that impaired oxidations in the brain play an important part in schizophrenia, the sensitivity of the cortex to anoxia is such that localized changes may result in abnormal mental manifestations with but little overall change in the brain metabolism. It is important to take into consideration not only the availability of oxygen or of glucose (the main fuel of the brain) to the nerve cell but also that of a variety of other factors, all indispensable for the normal rate of oxidation of glucose in the cell. Among such factors are nicotinamide, aneurin, riboflavin and adenylypyrophosphate. If there is a local deficiency of these substances, or some interference with their activities, the results, so far as the nerve cell is concerned, may be as far-reaching in their consequences as the deprivation of the oxygen or of the glucose supply. The sensitivity of the cortical tissue to anoxia may be a factor concerned with the beneficial effects of shock therapy, but too little is known as yet of the effects of these treatments on the metabolism of the central nervous system to come to any definite conclusion.

Referring to the work on glucose tolerance tests and emotional states, it was pointed out that Lockwood has observed a dependence of the hyperglycaemic index on the affective state as indicated by the psychogalvanometer.

Interesting results are now being obtained with the use of the electro-encephalogram on the connexion between biochemical activities of the brain and its electro-physiological properties. Studies such as these should help to throw light on the manner in which biochemical and electrophysiological phenomena connected with the central nervous system are linked with the mental state.

Dr. R. Benesch referred to work carried out by him in collaboration with Dr. P. Ellinger on certain nicotinamide-deficiency syndromes, namely, pellagra and the acute psychoses of the Cleckley-Sydenstricker type. Ingestion of nicotinamide normally leads to the excretion of nicotinamide methochloride. Benesch and Ellinger have shown that large differences in the basal output of nicotinamide methochloride, and in the output after nicotinamide administration, exist between control subjects and pellagrins as well as acute psychoses with a suspected nicotinamide deficiency. The mental confusion present in such cases clears up after nicotinamide treatment. They further showed that human intestinal flora are capable of synthesizing nicotinamide, so that a diet may inhibit the development of pellagra quite independently of its content of nicotinic acid. Thus the nature of a diet and the type of bacterial flora it encourages in the human intestinal tract are important factors to consider in the development or treatment of nicotinamide-deficiency disorders.

In general discussion it was pointed out that choline esterase is exceptional in presenting an example of an enzyme passing into the blood concomitantly with the development of an anxiety state or of an increased autonomic activity. Its appearance in the blood, however, will not, according to Dr. Richter, invalidate its use as a test for liver function. Further discussion ranged around the association of incipient pellagra with porphyrinuria and the fact that sulphonal poisoning may produce pellagra-like symptoms.

It was suggested by Dr. Mackenzie that a patient might most profitably be presented for biochemical investigation at a time corresponding to a definite phase of his behaviour, rather than on the basis of his psychiatric classification.

PETER CHALMERS MITCHELL was born at Dunfermline on November 23, 1864, and died in London, as the result of an accident, on July 2, 1945. He was the eldest son of the Rev. Alexander Mitchell, and was educated at Aberdeen Grammar School, the University of Aberdeen, and at Christ Church, Oxford, where he was an exhibitioner. He also studied in Berlin and Leipzig. He became senior University demonstrator in comparative anatomy and assistant to the Linacre professor at Oxford in 1888, and during 1891-93 was organizing secretary for technical instruction to the Oxfordshire County Council. Afterwards he went to London as lecturer in biology at Charing Cross Hospital and at the London Hospital. During this period he carried out various comparative studies mainly on the anatomy of birds, and in the course of this work spent much time at the prosectorium of the Zoological Society. About this time he published his "Outlines of Biology" and "Thomas Henry Huxley: A Sketch of his Life and Work", an outstanding biography which perhaps more than any other of his writings reveals his literary gifts. He also translated Metchnikoff's "The Prolongation of Life, Optimistic Studies" and O. Hertwig's "The Biological Problem of To-day. Preformation or Epigenesis?".

Mitchell will be remembered mainly, however, for his very great services as secretary of the Zoological Society of London from 1903 until 1935. During this period, by a judicious blending of popular and scientific interests, it became the leading zoological society in the world, a great popular and scientific institution, and a model for the many similar societies which sprung up during the twentieth century. Some idea of its progress may be gathered by the fact that between 1903 and 1935 the number of fellows increased from approximately 3,500 to more than 8,000, and the annual number of visitors to the Gardens from approximately 690,000 to more than 2,000,000. During his term of office the Zoo was largely rebuilt, the most notable additions being the Mappin Terraces, Aquarium, Reptile House, Monkey House and Monkey Hill. In addition, he was entirely responsible for the creation of Whipsnade Zoological Park, a monument to his energy, imagination and organizing ability. He himself regarded Whipsnade as his crowning achievement on behalf of the Zoological Society, and there he made his country home after leaving Malaga. His "Centenary History of the Zoological Society of London", published in 1929, contains an excellent account of the growth of the Society and the development of its various activities, including both Regent's Park and Whipsnade.

Apart from his zoological interests, Mitchell devoted much of his time to journalism and for many years was scientific correspondent of *The Times*, a regular leader writer, and that journal's adviser upon scientific matters. He was also chairman of the council of management of the "World List of Scientific Periodicals" from its beginning until 1935, and remained an active member of that organization until his death. He was largely responsible for the preparation of the volume which, in its second edition (1934), gives the titles and standard abbreviations of more than 36,000 periodicals.

After his retirement, Mitchell went to live at Malaga, but in 1937 political events debarred him

from remaining there and he returned to London, when he published "My Fill of Days", a record of his long and interesting life, and in the next year "My House in Malaga". For the last three years he had been honorary treasurer of the Joint Committee for Soviet Aid, which raised considerable sums of money for providing supplies for the U.S.S.R.

Mitchell had a most attractive personality, and with his keen though somewhat sardonic humour was a very persuasive talker. He had a great natural fondness for animals and was for many years president of the Universities Federation for Animal Welfare. He took an active interest in the protection of wild life generally, and was an active member of the Society for the Preservation of the Fauna of the Empire, being president during 1923-26 and afterwards a vice-president until his death.

He was elected to the Royal Society in 1906; in addition, he received numerous academic and public awards, and was knighted in 1929.

EDWARD HINDLE.

Brigadier-General Sir Percy Sykes

BRIGADIER-GENERAL SIR PERCY SYKES, who died on June 11, was an authority on Persia on account of the many years he lived there, his historical writings, and his numerous journeys through it. He also made exacting expeditions in Central Asia. He travelled with a historian's bias which served to people desolate roads and to link dreary adobe ruins or scattered shards of pottery with happier and perhaps splendid days in the past. During much of his travelling life he had the advantage of official status and prestige, but this was less important than the courage and audaciousness with which he flouted the dangers of travels fifty years ago, and the tough body and sturdy health which enabled him to endure hardships of the road and stays in infested Persian towns. No tales of insecurity would deflect him from his purpose, nor would the very real risk of a clash with slave raiders deter him from following a route chosen because it was little known or infrequently used.

Sir Percy's most important journeys were in Eastern Persia, north, central and south. Fifty-two years ago he followed the River Atrek from the shores of the Caspian into the gorges near Bujnurd. This meant crossing the marches between the unruly Turkomans and the Kurdish settlers put there to hold them at bay, and this he did adventurously alone. Many years later he filled in details along this little-known valley, from the prosperous populous headwaters near Kuchan to the uninhabited wastes near the Russian border. On his first journey he also crossed the Lut from Meshed to Kerman. During the next twenty years he filled posts at both these cities, and as he never liked to follow the same road twice he was able to amplify the traverses he made in a regional way.

Farther south Sir Percy crossed Persian Baluchistan on intersecting trails and climbed Taftan, Bazman and Hamant, all of them high enough to provide comprehensive views over hundreds of square miles of unexplored territory. Two of these mountains are young volcanoes standing more than two hundred miles from the sea, and their discovery did something to discourage the fallacy that volcanoes are only to be found close to the sea and to depend upon the breaking in of sea water to the depths of the earth's

crust for their activity. He was responsible for many new facts regarding the Jaz Murian basin, and is probably the only European who has penetrated the valley of Ramishk. He had an opportunity of visiting the wind-stricken Seistan depression, where the Afghan Helmand discharges, and on the way added to the knowledge of the eastern rim of Persia which extends four hundred miles south of Meshed past Birjand. As commander of the South Persian Rifles during the War of 1917-18, he had further opportunities for travel and the services of surveyors who extended his mapping.

Apart from the geographical aspect of his work, Sir Percy made noteworthy archaeological discoveries in Eastern Persia and studied the manners and customs of the people.

J. V. HARRISON.

SIR PERCY SYKES was a true embodiment of the tradition which makes a British officer posted in the East take interest in every aspect of Nature and life around him. His geographical exploration much exceeded the utilitarian purposes of his official duties. His earliest and most original work, "Ten Thousand Miles in Persia, or Eight Years in Persia" (1902), was very favourably received both in Great Britain and abroad. It contains a great mass of fresh observations on the antiquities, history and ethnology of eastern Persia. The work was continued in a series of reports on the journeys in Khorasan, etc., written in the same vein and published in the *Geographical Journal*. Small notices on the Gypsies, the Parsis and prehistoric remains, which he contributed to such organs as the *Journal of the Royal Anthropological Institute*, *Journal of the Royal Society of Arts*, etc., were also interesting, and often started further useful discussion among the specialists.

Sir Percy was no professional Orientalist but, working with the help of his *munshis*, he easily found in the original sources references to illustrate his descriptions. This is particularly noticeable in his notes on the famous mosques of Meshed. Many curious details on the pilgrimage to this sanctuary are recorded in the memoir prepared by one of his Muslim assistants and published in his translation under the title "The Glory of the Shia World" (1910).

Sir Percy's main interest lay in Persia, and his second book of travel, "Through Deserts and Oases of Central Asia" (1910), written in collaboration with his sister, the late Miss Ella Sykes, had a much more popular form. It summed up the impressions of his journey through Russia in 1915, of his temporary term of office as Consul General in Kashghar and of his hunting expeditions in the Pamir.

More ambitious were his historical works. His two volume "History of Persia" went through three editions (1915, 1921 and 1930) and has been recently translated into Persian. For the earlier periods Sir Percy naturally depended on the contributions of his collaborators, but from A.D. 1600 on the book contains many interesting items on the relations of Persia with Europe and particularly with Great Britain. In the additions to the third impression, the author recorded his personal experiences in Fars during the disturbances which followed the first European War.

The biography of Sir Percy's former chief, the Right Hon. Sir Mortimer Durand (published in 1926), formed a transition to a new field of his studies: in 1940 appeared his two-volume "History of Afghanistan". The book is a useful summary of the great