

OBITUARY.

JOSEPH SHAW BOLTON.

PROFESSOR JOSEPH SHAW BOLTON, a Past-President of the Royal Medico-Psychological Association, died on November 12, 1946, at his home in Beaconsfield, where he had settled in 1933 on his retirement from the Chair of Psychiatry at Leeds University and the Medical Directorship of Wakefield Mental Hospital.

In the days when the cause of mental disorder was sought in the histopathology of the brain he was one of the most distinguished figures in British psychiatry, and in that sphere he deservedly had an international reputation. His work on localization of cerebral function by his own extremely delicate technique of micrometric measurement of the cortical cell laminae was a magnificent and most painstaking research, the fruits of which, perhaps, have not yet all been gathered.

His book, *The Brain in Health and Disease*, was published in 1914, when cerebral physiology was waning and interest was turning to the psychological approach; but there are signs that the needs of modern neuro-surgery may yet direct our studies back to Bolton's teaching.

Somewhat belated corroboration of his work appeared recently in this journal (October, 1946) in an epitome of "Recent Advances in the Study of the Brain as the Implement of the Mind":

"A theory of brain function is advanced according to which the cortex is divided into three functionally discrete layers: (1) The infragranular cortex is assumed to mediate the function of instinctual activities; (2) the granular cortex has a receptive function; and (3) the supragranular layer is the locus of control, inhibition and educability."

Thirty-three years ago Bolton wrote and elaborately proved—

"The cerebral cortex consists of three primary cell laminae: (1) the outer or pyramidal, (2) the middle or granule, and (3) the inner or polymorphic.

"The outer or pyramidal cell lamina is the cortex which subserves the associative, psychic, or educative, in contradistinction to the organic and instinctive function of the cerebrum. The latter are subserved by the inner cell-lamina, whereas the receptive functions are performed by the middle cell-lamina."

A main point of this research was a convincing demonstration of the association of sub-evolution of the outer or pyramidal layer of the prefrontal cortex with mental deficiency and certain psychotic syndromes.

Born at Whitby, Yorkshire, in 1867, Shaw Bolton began his medical training as an apprentice to a local doctor, and only after he had amassed a bank balance of £100, from such remunerative activities as coaching backward students and playing the organ in church, did his father, the late Isaac Bolton, give his approval to his sojourn at University College and University College Hospital. Already he had taken his B.Sc., and after a brilliant course as medical student he graduated M.B., B.S. Lond., with honours and gold medal in 1894, and one year later took his M.D. He won the Atchison Scholarship and Filliter Exhibition and was a Fellow of University College. His post-graduate academic record speaks for itself: M.R.C.P., 1902; F.R.C.P., 1909; D.Sc.Lond., 1912; Goulstonian Lecturer, 1910; Maudsley Lecturer, 1925; President, The Royal Medico-Psychological Association, 1928; Henderson Trust Lecturer, 1933; Emeritus Professor and Honorary D.Sc., Leeds, 1934; Lumleian Lecturer, 1935.

After some years in teaching and research, first in anatomy and then in physiology, he entered the service of the London County Council as a pathologist under the late Sir Frederick Mott, at Claybury. Subsequently he served on the staff of Hellingley and Rainhill Mental Hospitals, and in 1910 he succeeded Dr. Bevan Lewis as Medical Superintendent at Wakefield.

His energy was boundless, and the general tempo of his working hours was quite extraordinary. Despite his continued devotion to scientific medicine, he suc-

ceeded in keeping *au fait* with the work of every department of his large institution. His daily routine began at 8 a.m., and the morning interviews and correspondence were models of courteous alacrity and dispatch. It was thus that he was able to find time to spend both in his wards and his laboratory, and at the same time to be a recognized expert on poultry breeding, photography and radiology.

He was a great chief and a great friend, with a higher standard for his own conduct than that which he required from others. It is twenty-four years since the writer served under him, yet to-day he is aware of being conditioned in his reactions by Bolton's influence, and many of his former colleagues, now widely dispersed in the practice of psychiatry, gladly bear similar witness. He shunned publicity and social prominence, but a great unselfishness and generosity of spirit adorned his private life, and in his delightfully happy family circle he was the most genial and hospitable host.

Even after he left Wakefield his active work was not over, for he was asked and agreed to take over for a time the direction of the Bucks County Mental Hospital, where he carried out much needed re-organization until the appointment of the present Medical Superintendent.

For many months he suffered much and very patiently in a protracted illness, in which he was heroically nursed day and night by his devoted wife, who, with two sons and a daughter, survives him.

J. IVISON RUSSELL.