

SIR WILLIAM GOWERS AT THE NATIONAL HOSPITAL

BY

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The Gowers Library at the National Hospital, Queen Square, was opened by Sir Gordon Holmes on November 29, in memory of Sir William Gowers. The money for this comes from bequests by Sir William's two daughters. A note on the ceremony appears elsewhere.

Just over 80 years ago a recently qualified physician was appointed the first medical registrar or "assistant to the physicians" to the National Hospital, which, though established only ten years earlier, was already an active and prosperous institution and included in its staff several of the best-known physicians of the day. This young physician was William Gowers, who later became one of the most eminent officers of the hospital, which he served energetically and devotedly for the following 40 years, during which he inscribed his name in the roll of the most distinguished physicians of his generation.

An adequate appreciation of Gowers's services to medicine requires a short review of his professional career. This has been recently dealt with by Dr. Macdonald Critchley in his biography of Gowers, to which I am indebted for many details. Owing to the death of his father while he was still a boy his formal education was restricted, but at the age of 15 he was, as was frequently the custom at the time, apprenticed to a doctor practising in Essex, where some of his relatives had lived. Here he spent hours when he was not engaged in his routine duties in the study of Latin and German as well as chemistry and botany, in the latter of which he became particularly interested and proficient. And his diary records that in addition to reading in the unoccupied moments of his day he rose from bed in the early hours of the morning and devoted two or three hours to the study of subjects that interested him, including those necessary for matriculation in the University of London, which he obtained with honours at the age of 18. And now, too, he perfected himself in shorthand, which proved such a valuable asset to him in his later life.

At the end of his two years' apprenticeship the problem of a sufficient income to enable him to join a medical school became urgent, but luckily fortune, that so frequently favours the deserving, came to his help. Nearly 50 years ago I spent a week-end with a friend whose father was vicar of Coggeshall, where Gowers had served his apprenticeship. The vicar, then an old man, asked me if I had met Willie Gowers, and told me he never knew a more intelligent, industrious, or conscientious boy. He became so interested in him that when his apprenticeship ended he brought him to London and introduced him to his friend, Sir William Jenner, then one of the physicians to University College Hospital and President of the Royal College of Physicians, who promised his help and advice. Jenner appears in fact to have used him during his undergraduate career as a secretary and assistant, and by the meagre salary

he paid him enabled him to live in moderate comfort. This association continued even after Gowers qualified in medicine at the age of 22.

Gowers at U.C.H.

Subsequently Gowers gained almost all the post-graduate honours at the disposal of the University and was appointed physician to University College Hospital and assistant to the professor of medicine. While he held these appointments he published several original contributions to medical knowledge, including a description of the anatomy of the nervous system and articles on diseases of the heart, of the blood, and of other organs. His ingenuity was revealed in a useful modification of the type of hypodermic syringe then in use, and in the invention of methods of enumerating the red and white cells of the blood and estimating the percentage of haemoglobin it contains. These methods were almost universally employed, in England at least, till recent years.

In 1888, however, at the age of 43, when he had apparently reached the acme of his career as a general physician, with the prospect before him of a large and lucrative practice in medicine, he suddenly retired from his appointments at University College Hospital and devoted the rest of his working life to the study and teaching of neurology at the National Hospital. This had been founded only ten years previously in an old and poorly adapted house with at first accommodation for only eight patients. Owing to the progressive policy of its board of management, or more accurately of Miss Johanna Chandler, to whom its foundation was really due and who provided the initiative and a considerable proportion of its annual income, adjoining houses were later purchased, so that when Gowers joined its staff it contained about 60 beds. Many of these were still in the original houses, though plans for erecting in their place a modern hospital were already in being. The out-patient departments had developed even more rapidly, as they offered special services nowhere else available in London or even in Europe. In the year 1870, for instance, over 2,000 individual patients made 12,000 visits to them.

Early Days at the National Hospital

Gowers's interest in diseases of the nervous system was probably due to the fact that some of his teachers and colleagues at University College Hospital, including Russell Reynolds and Charlton Bastian, were already physicians to the National Hospital. It was possibly on their advice that the post of registrar or "assistant to the physicians," to which he was appointed in 1870, was created for him. This post, which he held for the succeeding four years, must have offered him exceptional opportunities of gaining knowledge and acquiring experience, for his duties required that he should work in close association with all the senior physicians. When a few years later a vacancy occurred on the honorary staff he was elected assistant physician with charge of out-patients, but his further promotion was exceptionally slow: it was not until 20 years later that he became a full or senior physician to the hospital with charge of patients in the wards.

Fortunately, while assistant physician he worked as junior colleague to Hughlings Jackson, whom in subsequent years he frequently referred to as "my master."

This was an ideal combination, for while Jackson was pre-eminently a physiologist and a philosopher who found material which interested him in but few of the patients under his care, every patient presented to Gowers problems and experience in the diagnosis and treatment of disease. In order to afford him further experience Jackson handed over to him the care of some of his patients, but to this the board of management objected, pointing out that though a physician may occasionally transfer a patient to the care of his junior he must remain responsible for his treatment. It was only some years later that Gowers obtained the right to retain in the wards under his own care a few patients who, in his opinion, needed special investigations or continuous observation.

For 20 years, however, his duty consisted in interviewing and treating patients week by week in a small and ill-equipped room which contained neither the apparatus nor the equipment considered necessary to-day, and was frequently shared by a colleague. Here, with his characteristic energy and thoroughness, he investigated the patients allotted to him, and when they presented symptoms that threw light on the nature or localization of disease recorded these in shorthand for future study or reference. Thus he collected an enormous body of facts and observations which served him well in writing his celebrated *Manual* and other publications.

Teaching at the National Hospital

It appears that for several years he had little or no opportunities of teaching or demonstrating patients to either graduate or undergraduate students, though while still on the staff of University College Hospital he occasionally brought some of his students from there to enable them to see rare or interesting nervous disorders. Even when more accommodation became available in the out-patient department it was apparently not officially open to students till later years. Several years ago an aged doctor who came under my care told me that on casually entering the out-patient room one day Gowers, whom he found alone, invited him to sit down and discussed with him the significance of the symptoms which he found in his patients. My old friend accepted his invitation to return and bring with him some of his friends. This was apparently the start of teaching in the out-patient department which later became a prominent feature of the medical school.

Though not connected with the University of London or with any recognized school of medicine, considerable importance was attached to teaching from the earliest days of the hospital—in fact Brown-Séguard, one of the two original physicians, delivered lectures on the physiology and pathology of the nervous system even before it was officially open to patients. There is, however, no record of organized teaching after Brown-Séguard returned to Paris four years later, or for the next 15 years or so, and thereafter efforts to establish regular courses of lectures were made only by individual members of the staff till about 1890. It is a curious fact that the board of management repeatedly urged on the staff that “the delivery of lectures is an important and obvious duty and one contemplated by the rules of the hospital,” but for several years the physicians were reluctant to undertake it.

Gowers, in fact, seems to have been one of the first to initiate regular courses of clinical teaching. While

still only an assistant physician to out-patients he arranged, apparently on his own responsibility, to deliver one lecture a week in the old operating room, which also served as a clinical theatre. To these he quickly attracted such numbers of students and postgraduates that he had to invoke the assistance of his junior colleague, Charles Beevor. Though there are few records of these personal and unofficial efforts to provide instruction in neurology, they probably continued till a properly organized medical school, with Beevor as its first dean, was established in 1896.

When after 20 years' service in the out-patient department Gowers was appointed an extra physician with charge of patients in the wards he devoted less time to teaching on individual cases unless they presented problems that particularly interested him. He was, however, usually pleased to entertain visitors whom his fame brought to the hospital and the two or three post-graduate students who were generally attached to him. Then his interest was more centred on formal lectures, of which he generally gave two or three each term. Many of these, written in his simple but elegant prose, contained new observations or conclusions and, when extended and elaborated, were later published in medical journals or in separate monographs. And, in addition to these, in each of several years 8 to 10 contributions, some critical, some creative, appeared from his pen. These were never merely the fruit of an urge to write, but of a desire to present his considered views or to clarify problems raised by others. Many were of ephemeral interest only, but some contained observations or appraisements of permanent worth.

Gowers as a Neurologist

Those who had the good fortune to work with or under Gowers were particularly impressed by his encyclopaedic knowledge and by the skill with which he applied it at the bedside. He approached each case as a separate problem on the solution of which appropriate and efficient treatment depended. His eminence as a clinical teacher, on the other hand, was due to his skill and thoroughness in eliciting signs of disease and in presenting them to his audience in such a manner as to make the diagnosis (that is, recognition of the nature and site of the morbid processes to which the patient's symptoms were due) evident to all who were present. He was pre-eminently an accurate and precise observer, never satisfied with a conclusion unless it embraced all the relevant facts, while his teaching was distinguished by a clear and logical presentation of all the evidence revealed by his investigations. For years it was a matter of surprise to his house-physicians and assistants if a diagnosis he had made was not confirmed by further developments of the case or by post-mortem examination. And in those days x rays, examination of the cerebrospinal fluid obtained by lumbar puncture, various electrical devices, and other accessory aids to diagnosis were not available to the physician.

There is little doubt that the history of neurology will allot to Gowers a prominent place in the small group of physicians—including his contemporaries Charcot and Pierre Marie in France and Erb in Germany, as well as some of his colleagues at Queen Square—who established it as a scientific branch of medicine. He may not have identified as many diseases as separate morbid entities as Charcot and others, but anyone familiar with the medical literature of his day must be impressed by

his certainty in interpreting the nature and significance of pathological deviations from the normal and by the clarity and completeness of his descriptions of them.

But even now, and certainly in the future, Gowers's name and fame will be chiefly associated with his celebrated textbook *Manual of Diseases of the Nervous System*, the first volume of which appeared in 1886. Here its English readers found for the first time a review as complete as was then possible of nervous disorders, presented in that faultless style that distinguished all his writings, and illustrated mainly by his own drawings and etchings. But the main, and possibly the most valuable, feature of the *Manual* was that it represented the personal views and experiences of an extremely acute observer, and consequently remains even to-day a living classic of clinical medicine which includes in its pages facts and interpretation of facts that were only slowly, and often much later, generally recognized and absorbed into the body of medical knowledge. A second edition of the complete *Manual* appeared a few years later. Unfortunately, only the first volume of the third edition, which was revised with the help of his friend and colleague, James Taylor, was published in 1889.

Though in subsequent years many important papers appeared from his pen, the *Manual* remains his chief monument, but to those who knew him and worked with him he was obviously greater than his monument. To him the National Hospital is largely indebted for the high level of its clinical practice; few have added so much to its reputation as a centre of scientific medicine or contributed more to its policy as a teaching school.

REPORT OF THE MINISTRY OF HEALTH APRIL, 1949, TO MARCH, 1950

In addition to a review of the first full year's working of the National Health Service, the Report (Part I) of the Ministry of Health for the year ended March 31, 1950,* deals with housing, local government, civil defence, welfare services, water, and sewerage. The parts of the report dealing with hospital and specialist services and the general medical services are noticed in the *Supplement* at p. 253.

Maternity and Child Welfare

The report admits that much criticism has been levelled at the division of the maternity services into three different sections for administrative purposes, but points out how difficult it would have been to organize the maternity service apart from the other health services provided under the Act. "The maternity medical service was meant to be not a substitute for, but an addition to, the facilities already available for the care of expectant and nursing mothers; that in domiciliary midwifery, the midwife should continue to be regarded as the normal attendant, but now had at hand to assist if need be a doctor who already knew the case; and that general practitioners, midwives, and the staffs of clinics and hospitals all had their parts to play as members of a team."

To meet the demand for analgesia in childbirth, during 1949 local authorities provided 5,454 sets of analgesic apparatus, and gas and air was given by midwives to over 128,000 mothers confined in their own homes; this compares with 40,000 mothers receiving the same analgesia in the preceding six months.

In 1949, for the first time, the maternal mortality rate fell below 1.0, being 0.97 per thousand total births, compared with 1.02 in 1948. The infant mortality rate continued to decline, being 32.4 per thousand live births,

* *Cmd.* No. 8342, H.M.S.O.

although the rate for illegitimate births was 44.8; illegitimate births were 5.1% of all births. The report stresses the importance of keeping the unmarried mother and her child together, wherever this is possible.

Concern is expressed that mothers do not take their children more regularly to child welfare centres after their first birthday. Of the 2,992,000 children between 1 and 5 years only 27% were attending, with a yearly average of only four attendances per child.

Mental Health

On January 1, 1949, there were 56,790 males and 75,800 females in Health Service mental hospitals. Three factors are said to have contributed to the serious overcrowding of these hospitals, which by the end of 1949 amounted to 14%. First, there were still 2,753 mental hospital beds diverted to other services; secondly, only 92 new beds were provided by regional hospital boards for patients under the Lunacy and Mental Treatment Acts; and, thirdly, 2,279 beds were not in use owing to shortage of staff. "Additional beds are not being provided in sufficient number to keep pace with the increase in the demand, which results not from any increase in the incidence of mental illness, but from a normal growth of the population of the country."

Of the 108,222 known mental defectives under statutory care on January 1, 1950, 56,506 were in institutions. Accommodation was still insufficient, however; the waiting-list for urgent cases numbered over 5,000. Here again shortage of nurses was an important limiting factor; no fewer than 2,245 beds were unoccupied for that reason.

The Nursing Shortage

In an appendix to the report the numbers are given of nursing and midwifery staff (including student nurses and pupil midwives) in all civilian hospitals in England and Wales on March 31, 1950. There was a total of 125,131 full-time nurses (23,624 part-time) and 8,888 full-time midwives (969 part-time). Of these, 20,219 full-time and 5,842 part-time nurses were employed in mental hospitals, and a further 6,083 full-time and 1,919 part-time nurses in mental deficiency institutions. This compares with 68,762 nurses engaged full-time in general hospitals, and 8,967 part-time. It is estimated that 17,668 additional full-time nurses were needed for the general hospitals, 8,407 for mental hospitals, and 2,730 for mental deficiency institutions.

DRUNK IN CHARGE

What was stated to be the first public conference in this country to discuss the problem of alcohol and the road user was held in London under the auspices of the Pedestrians' Association on November 24.

Dr. A. L. GOODHART, K.C., Master of University College, Oxford, who presided, said that this was a major social problem. They all welcomed the downright statement of the Lord Chief Justice that the drunken driver was as dangerous as a mad dog. But it was not the drunken driver who was their main concern; it was the man who was "quarter-seas over" without realizing it who caused the most accidents. He quoted the finding of the Medical Research Council that "under the influence of alcohol accuracy and avoidance of accidents are jeopardized." The Scandinavian countries and Holland were taking resolute steps to meet the danger. What nonsense was the statement, "A little drink improves my driving." The British Overseas Airways Corporation allowed no one connected with the flying of a plane to take an alcoholic drink for eight hours before the flight or at any time during the flight. The driver who had taken enough to drink to give him false confidence on the one hand and to impair his ability to drive on the other was just as much a menace on the roads as was the drunken driver.