

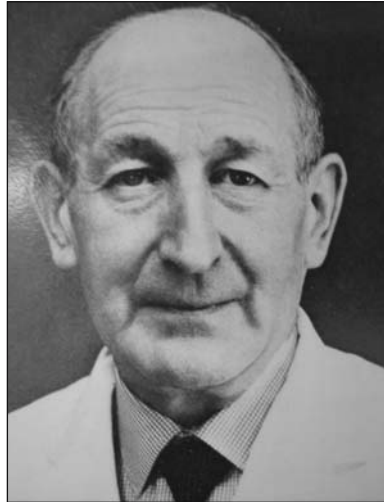
Operative Treatment of Fractures”—subsequently AO. The six founders adopted the following principles:

1. “Good” is what is good for the patient and satisfies the needs of the surgeon.
2. All procedures to be simple and described in simple terms.
3. Each operatively treated fracture to be documented and evaluated.
4. Documentation to include copies of all x-rays and slides, available to the group.
5. Each failure to be analysed and its cause determined.
6. The results to be statistically analysed.

Robert Schneider adhered to these principles throughout his professional career. In 1959, he became the first chairman of the AO—a post he held for 20 years. His critical self-evaluation, his grasp of complex issues, his ability to unveil links between seemingly unrelated events, and his many discoveries, earned him great respect nationally and internationally.

In 1968, he published *The First 10 Years of AO*. A later book, *25 Years AO Switzerland*, is a treasure house of AO information. Written in German, the book sadly was never translated into English. Some 22 other publications were but a prelude to his major work, a 300-page treatise *The Total Hip Prosthesis, a Biomechanical Concept and Consequences*. Robert Schneider received numerous honors, but he remained, nonetheless, a modest, friendly man.

In many countries he was “the father of the AO.” He remained in practice until the time of his sudden death, just as he put in the last skin suture after a hip arthroplasty. Robert Schneider will stay alive in the memory of all those who had the privilege to know him.



Sir Herbert SEDDON

1903–1977

Sir Herbert Seddon was born in 1903 in Derby and educated successively in Manchester, in Oxford and at St. Bartholomew's Hospital, graduating from the latter in 1928 with the Gold Medal. In 1930, he went to Ann Arbor, Michigan, as an instructor in surgery. There he met a graduate of the university, Mary Lytle, and married her in Marquette, Michigan, in 1931. On his return to England, he was appointed resident surgeon at the then relatively new and small Stanmore branch of the Royal National Orthopedic Hospital. In this period of his life, Seddon developed his immense knowledge of spinal tuberculosis and poliomyelitis. These problems remained of interest to him throughout his life and he made many contributions to both conditions. In more recent years, when these two problems had receded in importance in Britain, he advised many developing countries on how to manage these diseases, still overwhelmingly common in many of them.

It was while at Stanmore that he made his initial contribution to the pathology of paraplegia in spinal tuberculosis. He clarified the pathogenesis of paraplegia and showed clearly that it was due to the intervertebral abscess bulging backwards against the cord, and that it was not the kyphosis that caused cord damage. He also distinguished between this early, acute paraplegia due to an abscess and late-onset paraplegia due to gliosis secondary to a long-standing kyphosis and ischemia.

Who's Who in Orthopedics

This understanding allowed Alexander and later Capener to develop their concept of antero-lateral decompression of the cord, which so fundamentally altered the outlook for these tragic patients. Seddon became highly expert in operating on these cases and with Roaf and Lloyd Griffiths in 1956 published a monograph, *Pott's Paraplegia*.

In 1940, he was appointed as the first Nuffield Professor of Orthopedic Surgery in Oxford University. He was then only 37 years of age. His early promise, evident at Stanmore, was amply confirmed during his 8 years at Oxford. For most of this time, Seddon directed one of the peripheral nerve injury units established to deal with the large number of military casualties. His accurate observations, meticulous records and scientific exactitude brought clarity to a surgical area notorious for obscurity. Seddon's work during this time undoubtedly contributed more to our knowledge of peripheral nerve repair than that of any other surgeon. He continued his interest until his death and was undoubtedly the foremost surgeon in this field. His masterly book, *Surgical Disorders of the Peripheral Nerves*, first published in 1971, is the most important treatise on the subject.

After the war, a most imaginative development occurred in London. The university, utilizing the many specialist hospitals in London, created postgraduate institutes centered on these hospitals and embracing all specialties. Thus in 1948, the Institute of Orthopedics was created at the Royal National Orthopedic Hospital, with Seddon as its first director.

His greatest contributions were yet to come from this appointment. Although the Royal National Orthopedic Hospital, Great Portland Street had a long history and very distinguished alumni, the hospital itself had never become important; it took second place to the undergraduate teaching hospitals in the lives of the surgeons on its staff.

Within an incredibly short time the hospital and institute became a great center for orthopedic surgeons from all over the world who came to train: it was a veritable Mecca for surgical visitors. Seddon had a remarkable intellectual grasp of the fundamentals of surgical teaching and research and understood fully the potential of the institutes. It may truly be said that he was the principal architect in the creation of the Institute of Orthopedics. This certainly equals in importance his many scientific contributions to orthopedic

knowledge and these were of profound importance.

Seddon remained as director of studies of the Institute of Orthopedics until 1965. Then a chair of orthopedic surgery was funded by the National Fund for Research into Crippling Diseases and he was appointed to this new chair, retiring in 1967.

He was honored by a knighthood conferred in 1964. He received an honorary FACS and honorary degrees from Grenoble, Malta and Glasgow. He was president of the British Orthopedic Association 1960–1961.

During his tenure of office, the work of the hospital expanded enormously both at Great Portland Street and Stanmore. Special units were created to concentrate on difficult orthopedic problems. Men working at the institute made many contributions to orthopedic surgery during this epoch.

To many, Seddon seemed austere, even remote. He was a perfectionist and demanded similar standards from those around him. To many who worked with him, he became an admired senior and a warm friend. He showed them the potential of scientific surgery and the role of the academic surgeon. Surprisingly to some who did not know him well, he had a marvelous, incisive wit, making comments so perceptive and amusing that they remain long remembered.

In addition to his work at the institute, his mastery of administrative thinking led him to be much used by the Medical Research Council and the University Grants Committee in developing research and teaching. The Colonial Office were ever anxious to have his advice, initially to plan care following the large poliomyelitis epidemics in Malta and Mauritius and later in the development of medical services, particularly in the African colonies before they became independent.

In retirement he undertook a worldwide collaborative study, a controlled trial to compare surgical and conservative methods of treating spinal tuberculosis. This study, now published, is one of the most carefully planned studies ever essayed in orthopedic surgery, uniquely employing his gifts and a most eloquent memorial to them.

Earlier an enthusiastic mountaineer and photographer of great skill, he later taught himself to paint and proved to have a happy talent, which in retirement was often employed. Brought up as a strict Plymouth Brother, his Christian faith remained fundamental throughout his life. Later

he was received into the Anglican Church and found much pleasure in his local church affairs at St. John's, Stanmore.

Sir Herbert Seddon died peacefully on December 21, 1977, at 74 years of age. His influence on British orthopedics, and indeed on world orthopedic surgery, had been immense. His reputation as a scientific surgeon is likely to increase rather than diminish as the years pass, for his many original contributions are so tried and tested that his work will survive.

When Sir Herbert resigned from the Nuffield Chair of Orthopedic Surgery in Oxford to return to the Royal National Orthopedic Hospital in 1948, he had already been resident surgeon at Stanmore between 1931 and 1940 and had worked with many of the consultant staff, the majority of whom had been appointed 2 years before. The Postgraduate Federation had been formed and the Institute of Orthopedics was already in being under its dean, Mr. H. Jackson Burrows. Sir Herbert became the director of studies of the institute and clinical director of the hospital.

Under his leadership there was a rapid growth in enthusiasm for this new concept of a group of orthopedic surgeons working together in different fields, and combining together to teach and train the increasing number of keen young men. With J.I.P. James as assistant director, he made this training a top priority. The rapid change from the rather personal apprenticeship system to a guided specialist education with a number of teachers was not always immediately appreciated, and Sir Herbert spent many hours with individual registrars discussing their progress and plans. He often persuaded Mary to invite them and their wives to dinner at Moor House. After dinner, informal discussion might take place, and the rose garden at one time acquired, wrongly, a somewhat sinister reputation!

Registrars were helped to plan research investigations and meetings were organized at which they could try out their ideas before their peers—now almost a universal practice.

Regular bedside consultant teaching ward rounds continued for most of the junior staff, and particularly for his own. Men from other London hospitals as well as postgraduates were included, so that the attendance became too large to be accommodated in the wards, and the demonstrations were transferred to the lecture theater. Thus

began the Wednesday teaching day, which continues and is still expanding.

Sir Herbert's examination of patients was a perfect example to those in training: the careful unhurried history taking, the clinical examination and the outline of investigations—always carried out calmly and patiently, and much appreciated by patients of all ages. Clinical notes, whether dictated or in his own handwriting, were written with the greatest care and clarity, and the house surgeon or registrar whose records were slapdash was properly called to task and effected an immediate improvement!

Operations were usually carried out personally. He was a gentle expert surgeon, especially in his own particular fields, but once an assistant had shown himself to be completely competent, he was fully trusted and Sir Herbert had no qualms about delegation. He believed that the operator should write the operation note, in his own case often with a diagram to eliminate any doubt. These notes and drawings were of great value to himself and others in retrospective research.

Sir Herbert had a wonderful ability to reduce a complex and untidy problem, be it clinical or administrative, to its essentials. The apparent ease and simplicity with which the final conclusions were presented must be emphasized, and were seldom, if ever, the result of a sudden brainwave but rather of intense concentration of a superbly trained mind. The subject was then presented in an orderly, logical manner, easily understood and remembered. He could project with equal ease to the level required, to nurses, to men or women at an early stage of orthopedic training or to other experts in one of his particular specialties—and when required, in French!

Anyone privileged to work with Sir Herbert Seddon as pupil or colleague has learned his subject in a way he will never forget and will be forever grateful.

With the death of Sir Herbert Seddon at the close of 1977, British orthopedic surgery lost one of its greats. Genius has been defined as an infinite capacity for taking pains. This describes Jim Seddon in a nutshell. Whether it was in the operating theater tackling a difficult nerve repair, or preparing a lecture, or even learning the steps of a new dance in his office at Oxford, the same concentration and meticulous care was always present.

He came to Oxford in 1940 to succeed Gathorne Girdlestone as the first Nuffield Professor of Orthopedic Surgery. Girdlestone had built up the Wingfield Morris Hospital—now the Nuffield Orthopedic Centre—from nothing, and understandably over the years was regarded by patients and staff alike as little less than the Deity. Furthermore, with the advent of Seddon as professor and director of the hospital, the fact that the former director was still very much active did little to ease the difficulties of the new incumbent. It would be hard to pick two brilliant men with such differing characters. However, there is no doubt that, despite the inevitable clashes of personality, there was a deep mutual respect.

I came to Oxford in 1944 when the hospital still housed many wounded servicemen, and the Peripheral Nerve Injury Unit was a flourishing concern. The first and overwhelming impression of H.J.S. was of a man who was very precise and accurate in recording his own observations, and who expected his juniors to be the same, always insisting that their observations should be written down at the time. His strict regard for accuracy and intellectual honesty made him a welcome collaborator with scientists in other departments of the university, in particular J.Z. Young and Peter Medawar in the Department of Zoology. It was these links, and others, that enabled him to establish a scientific basis for the clinical research that he was undertaking on peripheral nerve injuries. There is no doubt that this background, together with his capacity for ensuring a high quality of note taking and recording, established the international reputation of the Oxford Peripheral Nerve Injury Unit—one of five set up by the Medical Research Council in Britain.

Because Seddon expected those around him to have his own standards of honesty and precision, he was always prepared to delegate a good deal of responsibility, and his delight knew no bounds when a member of the team showed sufficient initiative to establish a reputation in some aspect of the joint work. It is hardly surprising that he gathered round him a team of men and women who gladly and unsparingly gave of their best to him.

The results of this teamwork found expression in the report of the Medical Research Council on peripheral nerve injuries and later in his own book, *Surgical Disorders of the Peripheral Nerves*. Both indeed are fitting tributes to the work of the man himself and the team he directed. He laid the foundations of peripheral nerve surgery in this country. It seems unlikely that,

even with the advent of the operating microscope, the working rules for the treatment of such injuries will change for many years to come.

During his years at Oxford, epidemics of poliomyelitis first in Malta and later in Mauritius led Seddon to these countries. There his remarkable organizing ability and enthusiasm enabled him to establish treatment centers with the help of the local doctors. Furthermore, the physiotherapists, often working in difficult circumstances, were taught to record their observations on muscle charts, so that the information could be used later for clinical research. He also developed simple splints that could be made locally by ordinary craftsmen and which proved very valuable in the prevention of deformity.

Acute poliomyelitis inevitably brought him into close contact with children who were sometimes frightened, and often in pain. Jim's kindness and gentleness and great sense of fun gave much-needed reassurance to parent and child alike. Children loved him and he was never so happy as when among his "chicks."

During the war years, while his family were in the United States, Seddon lived with his parents and latterly his mother, who acted as hostess. No account of the Oxford days would be complete without reference to this remarkable Yorkshire lady, who took such a mischievous delight in teasing "the Professor," of whom she was so proud.

As a Fellow of Worcester College, he enjoyed to the full dining in a traditional atmosphere, with stimulating conversation far removed from clinical orthopedics.

In these days, with an orthopedic training scheme that is not too dissimilar from musical chairs, one looks back wistfully to an apprenticeship of some 15 years with a man whose goodness and kindness one can never repay, but will never forget.
