IVAN MAGILL

By STANLEY ROWBOTHAM

IVAN WHITESIDE MAGILL was born at Larne, Co. Antrim, on the 23rd July, 1888, and the early years of his life were spent in Ireland. He was educated at Larne Grammar School and Queen's University, Belfast. From here he graduated M.B., B.Ch., B.A.O., in 1913. Immediately after qualification he came to England, taking the posts of House Surgeon and later of R.M.O. at Liverpool Stanley Hospital. The following year he became R.M.O. at Walton Hospital, in Liverpool, but this post he held for only six months; for in August the Great War burst upon the world, and as with so many young men at this time of confusion and unrest, it profoundly altered Magill's career: but for the war it is unlikely that his inclinations would have been for anaesthesia; at that time he had a decided predilection for surgery.

In 1915, Magill took a temporary Commission in the R.A.M.C., and in this Corps he served, with the rank of Captain, throughout the remainder of the war. During much of his service he acted as Medical Officer in charge of troops, and he was Medical Officer to the Irish Guards throughout the battle of Loos.

After the cessation of hostilities Magill became anaesthetist at Barnet War Hospital, and early in 1919 he was posted with the writer to the Queen's Hospital for Facial and Jaw Injuries at Sidcup. However much his experience at Barnet had taught him, anaesthetics for the newly developed art of plastic surgery presented problems which...
might well have caused a man of lesser courage to think twice before he tackled them. Most of the anaesthetists at Sidcup were non-resident civilians, the newly posted officers were resident, and so it came about that they were precipitously and without training plunged into the task of administering some of the most difficult and hazardous anaesthetics that one could meet. These cases, however, not only intrigued Magill, but stimulated in him an obstinate tenacity, the result perhaps of his northern Irish descent. He threw all his energies into the problems concerned with the administration of the anaesthetics with which he was daily dealing, with what result the history of anaesthesia from 1920 onward bears eloquent witness. This, then, was the start of Magill's real life's work. Much was lacking in the anaesthetic techniques in use at Sidcup, and as realization of what was needed gradually came to him, he set about first the task of making himself a good anaesthetist, and then of improving and perfecting the methods in use and of designing new ones; it was in fact the genesis of a new era in anaesthesia.

When Magill joined the Hospital at Sidcup, the usual anaesthetic for plastic and jaw operations was rectal oil ether. This was far from being a satisfactory method; the patient, too light at the start, often became very deep during the operation; after return to the ward the recovery period was prolonged, sometimes as long as twenty-four hours. Moreover, given the occasional case where it was possible to maintain an even degree of anaesthesia throughout the operation, the problem of keeping an airway was always present, and often severely hampered the surgeon in his work. Oral airways and Silk's nasal tubes were commonly in use to meet this difficulty. Kelly's method of intratracheal insufflation had lately been introduced into
London by Shipway, and was in process of trial at Sidcup. The catheter was, for oral operations, passed through the nose, being viewed in the pharynx by a laryngoscope and guided into the larynx with forceps. For this purpose Magill invented a special forceps which have in fact found many other uses besides the one for which he originally intended them. Kelly’s method proved to be an advance on rectal ether, but the amount of anaesthetic which the surgeon was forced to inhale and the bubbling of blood in the mouth caused by the returning air stream rendered it still far from an ideal procedure. Return airway tubes were accordingly introduced and for this purpose Silk’s tubes were at hand, and often worked admirably. There then followed the discovery that the tube when passed down the nose sometimes actually entered the larynx, and that it could be nearly always manipulated so that it would do so. This led directly to the elaboration of the technique of blind intubation, a technique which Magill carefully worked out and described. It was from this time that the development of endotracheal intubation as we know it today originated; an advance in which Magill took an important and original part.

It was at once obvious that whereas endotracheal insufflation had many drawbacks, intubation of the larynx with a single wide bore tube had great advantages. It was, for instance, possible to give a pure mixture of gas and oxygen, a method which was both wasteful and difficult by insufflation. According to the type of operation it was desirable to introduce the tube via the mouth or via the nose. The latter method particularly intrigued Magill and when he discovered that the tube could be introduced “blind”, without the use of a laryngoscope, he concentrated on this method, which he described to a meeting of
the Anaesthetic Section of the Royal Society of Medicine in 1928. Up to this time the tubes used for intubation were either Silk’s nasal airway tubes, which were often too small, or home-made ones fashioned out of any curved piece of rubber tube that was available. Magill persuaded the manufacturers to mould a series of tubes in graduated sizes; this refinement enabled blind intubation to be firmly established as a technique to be used in every type of case and every age of patient where the nose was available for the tube.

Magill’s career as an anaesthetist has been largely associated with the development of endotracheal anaesthesia, and he has invented and perfected many instruments and apparatus for use in this type of anaesthesia. He was, for example, the first to devise a laryngoscope with self-contained battery, and after his appointment to Brompton Hospital in 1923, he introduced methods which it is no exaggeration to say have revolutionized the anaesthesia, and as a direct result, the surgery, of chest operations. In 1931, he first used a catheter with an inflatable cuff to control the secretions in the operation of lobectomy, and in 1936 he produced his ingenious tubes, with instruments for their introduction, for one lung anaesthesia.

Throughout his career Magill has been associated with plastic surgery. He was probably the first to adopt the endotracheal technique for cleft palate and hare lip operations in infants. He still remains an outstanding exponent of this method, which has been copied by many anaesthetists throughout the country.

In 1924 Magill was appointed Anaesthetist to Westminster Hospital. He is now Senior Anaesthetist to the Hospital and has served on the Staff for 26 years. Although known largely for his work in endotracheal anaesthesia, he
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has not been backward in other directions where invention and improvement of anaesthetic apparatus seemed necessary to him. As early as 1928 he adopted dry flowmeters for the measurement of gases, and in 1932 he suggested to Mr. A. C. King the adoption of rotameters for this purpose. They were at that time made in Germany and the cost was prohibitive; moreover, delivery could not be obtained under six months. It was not therefore until 1935 that he was able to obtain rotameters made to his own measurements in this country.

Basal anaesthesia was early adopted by Magill, and in 1930 he was responsible for introducing Nembutal from the U.S.A.

An incident worth recording which shows how advanced an outlook in anaesthesia Magill has always held comes from Dr. Harry Daly, who just before he left this country wrote: "It is interesting to note that while in London in 1935, Dr. I. W. Magill remarked to me that curare as a muscular relaxant might be used in place of spinal analgesia then under trial for thoracic surgery".

When Magill first began his career as an anaesthetist there was but one established venue where anaesthetists met to discuss their problems and exchange experiences, this was the Section of Anaesthetics at the Royal Society of Medicine, which had developed in 1908 from the old Society of Anaesthetists. In 1931 Magill put before the Council of the Section the advantages which would accrue from a Diploma in Anaesthesia. The discussion on this project was recorded by him in the minutes on 6th November 1931, for he was at that time Senior Secretary of the Section. He was, however, informed by the Secretary of the Society that such a project was entirely outside the scope of the Section. The R.S.M.
under their charter were only allowed to deal with scientific subjects. However, several members of the Section met and during the year 1932 it was decided to form an independent body to be called the Association of Anaesthetists, having as its first objective the introduction of a diploma in anaesthetics. He has taken an active part in the work of the Association since its foundation and was one of the first examiners for the Diploma, the first examination for which took place in 1935. He is at the present time the senior member of the newly formed Faculty of Anaesthetists.

During the war Magill chose what was probably the hardest role of all, to remain in the bombed and war wracked metropolis. He narrowly escaped death, for the house in Wimpole Street in which he lived was destroyed by a bomb in 1941, but luckily at the time he was not in it. He carried on his attendances at both Westminster and the Brompton Hospitals throughout the war, and in addition he became adviser to the Ministry of Health, laying the foundation of the anaesthetic section of the present National Health Service.

Many well-merited honours have fallen to Magill. In 1945 his own University of Belfast conferred on him an Hon. D.Sc. In 1938 the Anaesthetic Section of the Royal Society of Medicine presented him with the Hickman Medal—the highest award which his brother anaesthetists could confer on him. In 1939 the Ulster Medical Society gave him a medal and elected him Robert Campbell Memorial orator. This year he was presented by the Irish Medical Graduates Association with the Arnott Commemoration Medal. His services to the Royal Family, which are many, were in 1946 recognized by the King, who was graciously pleased to invest him Commander of the Royal Victorian Order. In England
he is universally recognized not only as our most skilful exponent of the art, but as the doyen of the body of English Anaesthetists. Abroad, not only in the Dominions and America, but on the Continent of Europe, his name is well-known and held in highest esteem. British anaesthesia indeed owes its present position in no small measure to Ivan Magill.