As to the first recipient of this award, the ad hoc committee wrote to many prominent anesthesiologists and the unanimous opinion was that it should go to Sir Ivan Magill. In regard to the award itself and the first recipient, Dr. Waters wrote:

"How wonderful that the Midwest is able to offer such an outstanding award. I most heartily approve of the choice of Sir Ivan who has been a benefactor to all anesthetists, as well as a delightful friend to many."

"It is with much regret that I must say I cannot be in Chicago at the end of April. To play the part of Ghost requires skills which I do not possess. I have noticed that even Sir Ivan's fellow knight, Sir John Gielgud, has so far managed to avoid being cast either as Hamlet's father or as Banquo in Macbeth. It is with feelings of sorrow as well as embarrassment that I shall not be standing behind Sir Ivan during the afternoon of April 30th. I am sure that none is better fitted to discuss the Heritages of the Past as they contribute to the Privileges of the Future.

"My sorrow is sincere that I shall not be present to welcome this dear old friend during this rare visit to the USA. I pray that he may enjoy the visit and that all of you who can greet Sir Ivan in person may realize what a wonderful privilege you are permitted, in being granted personal acquaintance with one of the really great benefactors of Anaesthesiology and of the science and art of medical practice in the world."

Most Sincerely yours,

Ralph M. Waters"

Sir Ivan Magill needs no introduction to most of you but some aspects of his long and splendid career should be recalled.

Besides the Barretts, Wimpole Street stands out in the field of medicine and in anaesthesia particularly, for the family of Ivan Magill. For many years he was a prominent figure in the Westminster Hospital of London, and his contributions to safe anaesthesia and his emphasis on the adequate airway are evident in the many lives that have thus been saved. It was his development of the wide-bore endotracheal tube which enabled anesthetists to provide anesthesia for operations on the head, neck and thorax, and to make these operations safe.

An Irishman, he was born in County Antrim, on July 23, 1888, and received his preliminary education at the University of Belfast. In Britain, he was most effective in having anaesthesia accepted as a specialty and he struggled to establish the Diploma in Anaesthesiology. He served in both World Wars, and in the second conflict was an Advisor to the Ministry of Health, on Anaesthetics. During the London "Blitz" he narrowly escaped death when his apartment on Wimpole Street was destroyed.

Many honors have come to Sir Ivan. In 1938, he received the Hickman Medal for contributions to anaesthesia. Having served the Royal Family for many years he was invested, in 1946, with the title, Commander of the Royal Victorian Order. In 1956, he was knighted by Queen Elizabeth.

Sir Ivan is best described as a genial, humble, but deep-thinking Irishman. Throughout his career, his wife, to whom he is deeply devoted and who has been a practicing pediatrician, has been one of the main sources of his inspiration. May I present Sir Ivan Magill!

VINCENT J. COLLINS, M.D.

The Heritages of the Past Are the Privileges of the Future


Whatever one's profession may be, there comes a time in all our lives when the pace slackens and a stimulus is required to awaken us from an increasing tendency towards lethargy. In my own case, I confess today that the invitation to be the first recipient of the Ralph Waters' Medal provided that stimulus to an overpowering degree. It was, moreover, a challenge, for in fact I had already given up the idea of travelling far afield for any purpose. I am deeply grateful for the honour of this nomination which might well have been given to one of the many people whose contributions to the advancement of anaesthesiology have been much greater than mine. Above all, I welcome the opportunity to be associated with a tribute to one whose inspiration and example have been outstanding throughout his life.

The career of Ralph Waters has been admirably recorded by Gillespie, and I expect is fairly familiar to most of you. Nevertheless,
because he, like myself, started the hard way and got into anaesthetics almost by accident, and because he, like myself, ended up most (if not completely) on terms of equality with the once exclusive specialist physicians and surgeons, I would like to refresh your memories very briefly. Ralph started as a general practitioner in Sioux City, Iowa, in 1913: Nevertheless, he had developed an interest in anaesthetics while still a student—a bizarre taste for those days—and once qualified, was in great demand to give dental anaesthetics. By 1915 most of his time was devoted to the subject, and nine years later he moved to Kansas City, Missouri. However, he was only to stay there three years. In 1927 he was invited to go to the new state hospital at Madison, in Wisconsin—at first as Assistant Professor of Surgery, in charge of anaesthesia, and subsequently he was elected a full Professor of Anaesthesia in 1933. It was at Madison that he was to remain for the rest of his professional career.

Ralph’s publications number well over a hundred—starting with one entitled “Why the Professional Anaesthetist?”, and passing on to such varied subjects as the problems of carbon-dioxide absorption, of endobronchial anaesthesia, of cyclopropane, and of anaesthetic recovery rooms in operation theatres. Not only was there this spate of first-class work, but Ralph’s influence on the standards of anaesthetics, whether on fundamental research or on practical applications, has been incalculable—both here in the U. S. A. and much further afield. Honours, of course, showered in on him from all quarters. He was, may I remind you, the second President of the American Board of Anesthesiology, in 1938, and the first President of the Section of Anaesthesiology of the American Medical Association in 1940. In 1944 he was awarded the Hickman medal, while in 1948 my own Faculty of Anaesthetists of the Royal College of Surgeons of England presented him with an honorary Fellowship.

I must now tell you that I am not going to give a scientific paper. Mine will be a different type of lecture—with not a single slide nor a single statistic. Fortunately, I can do this quite easily on the authority of my title.

Status of the Anaesthetist

I want to turn to consider three topics that both Ralph and I have been concerned about on our separate sides of the Atlantic. These are the status of the anaesthetist, his training, and a critical attitude to “progress” in our specialty. For the first of these Ralph’s first paper will serve as a peg on which to hang my remarks. The very reason that nobody today would dream of posing his question, “Why the professional anaesthetist?”, or if he did, would be answered by some irreverent comment, is a measure of how far we have come today.

But it may legitimately be asked, “Why was there a delay of almost a century between the idea of anaesthesia, and putting it on a professional basis?” By this I allude to the period which elapsed between the original idea of the young Ludlow surgeon, Henry Hill Hickman, in about 1834 and the institution of the first specific professional qualification, the Diploma in Anaesthetics, in 1936. You may remember that in 1896 the great Sir Frederick Hewitt (who was responsible for so much in anaesthesia) inquired, “Why do not deaths from anaesthetics shown signs of diminution?” He replied himself “the responsibilities involved in administering anaesthetics are not yet fully realized; that the administration is too often placed in the hands of comparatively unskilled men.” Even in 1912 he found that only 8 out of the 22 British authorities examining and granting registerable medical qualifications made any stipulations about experience in anaesthesia at all. Some of this neglect of our specialty, I agree with Hewitt, was due to the death of John Snow, which meant the loss of an outstanding pioneer. Some was due to the ignorance on the part of the surgeons, who were so delighted with the opportunities of operating on unconscious patients that they failed to realize how much their results depended on skillful anaesthesia. Even when Ralph and I started in the subject, just before the first world war, in Britain, at any rate, people were appointed as anaesthetists to a hospital because of the size of their general practices rather than on their own inherent abilities.

“But,” you may ask, “why should the situa-
tion ever have improved?” Even though the Section of Anaesthetics of the Royal Society of Medicine had been formed in 1908, the answer, I think, lay in the conditions encountered in the first world war.

The vast numbers of wounded (and the types of their injuries) called for something more than ether and chloroform on an open mask. When your country came into the war, your doctors brought new apparatus, including the Gwathmey machine, which stimulated our ideas greatly. After the war the rapidly expanding specialty gave new life to the section of anaesthetics of the Royal Society of Medicine. When I became Secretary of this in 1931 it occurred to me that the importance of anaesthetics could never be recognized without a diploma of some kind to indicate that those who held it had essential training and experience in the subject. With the help of Dr. Henry Featherstone we then founded the Association of Anaesthetists with this as the main objective. The first examination was held in 1936, and twelve years later the Faculty of Anaesthetists of the Royal College of Surgeons was founded.

Here I must say that we were particularly fortunate in having the support, both moral, and financial of the late Lord Nuffield—and his promotion of the first chair of anaesthesia at Oxford (whose first occupant was Sir Robert Macintosh) was one of the most important events of the history of the specialty in Britain. Lord Nuffield gave the University of Oxford two million pounds to establish a number of departments, but he had a battle to establish that of anaesthetics—which it is said he won only because of his personal experience of anaesthetics, both good and bad. Lord Nuffield used to reminisce about the time when he walked up and down Oxford with Sir Farquhar Buzzard, the Regius Professor of Medicine at Oxford, arguing about the need for a Chair, finally having to make it clear that it was either everything or nothing, as far as his gift of money was concerned. In this way Britain got its first chair in Anaesthetics. Because of all this, I think it is now no exaggeration to say that in Britain high-quality anaesthesia given by experts in the field is available to every patient, and, because of the National Health Service, this is free.

As in your country as well, anaesthetists are coming to the fore in the staffing and management of intensive care and specialist units.

Those of you who know Ralph and his work will readily appreciate the parallels between our struggles in Britain and yours in this country. He, of course, established the first comprehensive programme for the training of anaesthetists in America, by instituting a system of three-year fellowships in anaesthesia at the University. Moreover, I must say that I have always envied him not only his choice of university, with its tradition of distinguished men in other clinical and paraclinical disciplines—such as Gasser and Erlanger in physiology, Leake and Severs in pharmacology—but his determination never to let up on running his department with the highest standards. I must confess that features of this—the recording of every anaesthetic procedure on punched cards, the journal club, the staff meetings—were not introduced into British hospitals until many years later. To take the parallel even further, your American Board of Anesthesiology, founded for the same purpose as our Association—to grant specialist qualifications—was started just two years after ours, in 1938, and, as I have already said, Ralph became its second president.

Here I should like to digress a little and pay a tribute to the late Noel Gillespie, who was a friend of both Ralph and myself, and indeed worked with Ralph as his associate professor at Madison. Considering his influence on anaesthesia at a time of rapid change, and particularly his standard book on *Endotracheal Anaesthesia*, I have always been surprised at the small number of published tributes he received when he died—indeed neither of the weekly British medical journals recorded this, nor did the *British Journal of Anaesthesia*. Noel was one of the first doctors to participate in what we now call in Britain “the brain drain,” and after practising as the senior resident anaesthetist at the London Hospital (where he also taught anaesthetics to the students) and at the Connaught Hospital, he came to Wisconsin and stayed there for the rest of his life until his early death in 1962. Thus his work spans both the worlds of Ralph and myself, and indeed one of our great interests—endotracheal anaes-
thecia—was also one of his, and, together with Arthur Guedel, Ralph and I wrote the preface to this important monograph.\textsuperscript{5}

In the first issue of the first volume of your own journal, \textit{Anesthesiology}, that great man, the late Dr. Howard W. Haggard, the physiologist at Yale, wrote that the establishment of any specialty in its own right was based on three major points.\textsuperscript{6} Firstly, it must be an intellectual as well as a manual occupation. Second, it must receive respect and prestige from the other members of the medical profession. This respect might come primarily from the doctor, as it did in surgery, or it might follow public opinion. Third, and last, the specialty must have public comprehension and receive public respect and prestige. Applying these dicta to anaesthetics, I think it is obvious why we are honouring Ralph Waters today. He has undoubtedly made it an intellectual occupation. What anaesthetist commands more respect from other doctors than he?; and his achievements have been recognized by enlightened public opinion, not only on this side of the Atlantic but throughout the civilized world. One example of the latter is of Ralph's emphasis that patients too debilitated to cough will develop respiratory obstruction unless their secretions are removed mechanically. It is not too much to say that the success of managing patients with bulbar paralysis in poliomyelitis, as shown in the epidemics which swept Europe in the late 'forties and early 'fifties, owed a lot to Ralph's work and teachings, and the public knows it.

\textbf{Angry Young Men}

Some of you may know that in the early nineteen fifties in Britain a new phenomenon appeared on the horizon—first of all in the theatre, and later in literature, poetry, films, and painting. Since the artists concerned were usually poor, and young, they endeavoured to overthrow the established order of things. They wrote plays, full, I'm told, of searing words and phrases—which because of their subject matter became known as "kitchen-sink" drama. The artists themselves became known as "angry young men," a word which I am interested to see is already in one of the latest American dictionaries. Even though their anger has evaporated as the hairs on their heads have got less, and their bank balances have got larger, the description has stuck. I was therefore interested to read a review of a book about teaching anaesthetics by my old friend Professor William Mushin, of Cardiff, who called the author an angry young man. Because I think the book's conclusions are important, and because I doubt if many of you in the States know about it yet, I would like to spend a little time telling you about it.

This book, whose title is "A New Look at Anaesthetics"\textsuperscript{2} is part of an interesting new collection called "The New Look at Medicine Series." Its author is Dr. James Parkhouse, who has worked with Professor Cecil Gray at Liverpool, and at the Mayo Clinic, and is now First Assistant to Professor Sir Robert Macintosh at the Radcliffe Infirmary at Oxford.

Dr. Parkhouse's principal thesis is that training and practice in anaesthetics are inseparable parts of a unified whole. In a teaching centre there is no room for two departments. Any one department must be able to serve both academic and clinical needs, and only in this way can a balanced view of the specialty be obtained. Moreover, he doubts whether it is wise in the long run to divorce postgraduate from undergraduate teaching, either geographically or in any other way. He calls for the establishment of a coherently designed programme of education, in which it is unnecessary for the junior doctor to have to move from hospital to hospital. This would take four years of clinical instruction, followed by a variable period as a clinical apprentice. Postgraduate examinations, in his view, have only one real purpose—to ensure that the candidate has the necessary background information. He goes on to say something with which I think all of us here will agree, "Diplomas, publications, and purposeful travail all have their true place, but it is not necessarily the place accorded them in our sophisticated society. Regrettably, our present criteria for promotion and selection encourage both cramming and superficial writing."

Once a doctor was a specialist anaesthetist, Dr. Parkhouse sees his future career essentially as a dynamic one, instead of the static one that most anaesthetists lead today—at any rate, in Britain. The first specialist posts
would invariably be outside the university centre. Posts in the university centre would be filled by competition from specialist anaesthetists in peripheral hospitals, and they would be subject to review every five years. Usually, also, they would return to a peripheral hospital at the age of 50 or 55.

Some of you may be so startled by these proposals as to think them unworkable. But I see them, perhaps somewhat modified and with their edges smoothed off, as the logical way of keeping training in our specialty dynamic and evolving. And I am sure that in 100 years time they will have fallen into their proper perspective, as a continuation of the programme Ralph Waters started in the thirties.

**Festina Lente**

The third part of my talk I have entitled “Festina lente,” which, as you know, means “hurrying slowly.” Lest you think that this is a curious phrase to apply to Ralph—a man who has done so much—let me hasten to add that I intend it as a compliment, and not as something to provoke a challenge to a duel. Ralph’s dictum has always been: clinical anaesthesia first; teaching second; research third and last. This attitude underlines his deep humanistic concern for the patient as a person, but it does not mean that he has no teaching or research in his department—far from it. But he has to take every new drug or technique and weigh it in the balance before accepting it, or, if it is found wanting, reject it totally or modify it considerably. An example of this is the record card technique. Now we know that McKesson had used charts for 6,000 patients in 1915, and that Harvey Cushing had recommended that the blood-pressure should be recorded throughout an anaesthetic—but Ralph went one better. From 1932 every administration of an anaesthetic was recorded on a punched card, recording the details, not only of the administration, but also of the physical condition of the patient before, during, and after the operation. Thus when he wanted to analyse the effects of chloroform in patients over an 8-year period, the investigation was simplicity itself. Moreover, by 1937 these punched cards were officially recognized by the American Society of Anesthetists who appointed a committee under the chairmanship of Dr. Meyer Saklad, of Providence, to investigate and standardize the code.

I suppose that another twenty years will see the wholesale invasion of anaesthetics by the computer. First they will monitor routinely the patient’s progress throughout any operation, and automatically adjusting the apparatus to deal with any physiological change. Secondly, they will be able to record all the details of every single operation, to code and store them automatically, and even to relate them to details of the patient’s past medical history.

To return to our old ways of classification, I must mention the case of cyclopropane, which Ralph studied carefully in the pharmacology department at the University of Wisconsin before he used it with human subjects. Incidentally, to add a personal note, I last saw Ralph just thirty years ago when he spent some time in Britain demonstrating the use of this new agent.

The other side, and corollary, of this attitude to hurrying slowly is Ralph’s fresh analytical approach to any topic. I should like to digress here by telling you a story which—though I know nothing at all about music—I was impressed with when told it by a musical friend. It concerns the famous composer Gustav Mahler. When he was appointed director of the Vienna State Opera he was stopped by the Leader of the orchestra, who said “But, Master, we don’t play it in this way.” “Why not?” asked Mahler. “Because it’s not our tradition,” was the reply. Mahler’s answer is a classic—“Tradition ist Schlamperei,” he thundered. Now “Schlamperei” is a difficult word to render into English, but the phrase has been translated as, “Tradition is tripe,” or “To Hell with tradition!” I fancy that in a similar context Ralph’s reply would be comparable. We can see this in the careful study of chloroform he and his department undertook. They studied this as if it was an entirely new agent, Ralph initiating the project and supervising each phase of the investigation. His final conclusion, printed in the Symposium on Chloroform which he edited, was that “Chloroform does not deserve to be abandoned as a surgical anaesthetic” and that
as "with cyclopropane . . . the responsibility for overdose rests entirely upon the administrator." In another context Ralph has also pointedly referred to the need for accurate apparatus to control the content of the inspired atmosphere,1 "If modern chemists and engineers can construct a warship which can safely and comfortably carry a large number of men for days and weeks at or near the bottom of the ocean, they should be able to help us construct an anaesthetic apparatus of small bulk and cost which can "keep pure" indefinitely, the atmosphere required by a single patient." But this type of study of chloroform was a model of its kind, and I am afraid it is all too rare in the annals of our specialty. I am glad to point out, however, that both in Britain and in Boston, recently similar retrospective analyses of the action of halothane have been performed, and that they showed no difference in its effect on the liver from other anaesthetics.

Having said this, I must now quote from a passage by Ralph again which comes very close to my heart—"On the other hand," he said, "in our struggle to become scientific we must guard against the real danger of losing our art."12 Now I am all too aware that when we get old we tend to substitute a scepticism, or at times even a hostility, for the advances which we have not kept up with—or which we do not understand. Or that is, at least, how it appears—as I remember thinking when I was younger. But I am comforted by the number of anaesthetists who have agreed with me, seeing complexity only for complexity's sake and urging simplicity in anaesthesia—or asking if a proper perspective has not been lost in our specialty. In support of this I would like to mention that one of the best demonstrations I have ever seen, and already mentioned—that done by Ralph using cyclopropane in 1936—was done using only a simple cone made out of paper.

Some of us, I think, tend to lose sight of the fact that our specialty is essentially an ancillary one—and that without the surgeon, there would be little justification for our existence. Now, specialization is obviously called for, not only because of the variety of agents and techniques available, but because of the real dangers which may attend their use by inexperienced doctors. On the one hand there is the dangerous case with which powerful agents such as the barbiturates or relaxants can be given. On the other hand there is the fact that complication and fatalities still arise from anaesthetics administered in connection with relatively simple operations. Is not intubation still grossly over-done? Is it really necessary to intubate a baby for circumcision? Ask your patients about their sore throats after their operations.

In short it is very evident that the discovery of new drugs, new machines, and new techniques is no more a guarantee of improved results than a new scalpel or needle in the hands of the surgeon. We must look beyond the technological advances to gain a true idea of the nature of the modern advance of anaesthetics. The core of that advance lies in the extension of the anaesthetist's interests and responsibilities from outside the operating theatre to both the preoperative and postoperative phases of treatment.

All sound modern anaesthetic practice is based on a thorough assessment of the patient as an individual. In contrast to the laboratory worker, whose results are based on formalized experiments with standardized animals and conditions, the anaesthetist is a general doctor first, and an applied physiologist, secondly, whose eternal concern is with the individual deviation from the normal. I believe that this has to be impressed at the student stage; otherwise the student is so fascinated by gadgets that—as Blomfield so aptly said—"he notices more what his machine is doing than what effect it is having."12 Noel Gillespie also pointed this danger out in the preface to the second edition of his book,5 "I deeply deplore and distrust," he says "the tendency current among some anaesthetists to exalt the importance of the theoretical at the expense of the practical."

At the risk, perhaps, of seeming to overemphasize this point, may I cite the case of the relaxants? Almost a quarter of a century ago the drug curare was introduced by Griffith and Johnson.14 Three years later, Griffith was emphasizing15 "I do know that curare will never take the place of the anaesthetist's skill. The experience, ability, and judgement of the anaesthetist are more important than any new
agent or method, and I believe that curare should remain as just one more good thing in the modern anaesthetist’s bag of tricks.” Four years ago in the British Medical Journal there was a lively exchange of letters, which many of you probably missed. This started with a letter from somebody who called himself “Physician” who described his own intra-abdominal operation. At the beginning of this he was given thiopentone and a relaxant, and then, he says, that he had the unpleasant experience of hearing the anaesthetist discuss with his assistant the adequacy of the dose of thiopentone for a man of his size. There was a similar episode at the end of the operation. The writer added, “I knew the answer only too well and would have been glad to have let him know.” Describing three other, similar cases known to him Physician went on to say “I would advise any anaesthetist who is to have an operation to choose not only his anaesthetist but also his anaesthetic agents with care. . . . There should be no relaxant used without unconsciousness, there should be no return to consciousness without abolition of the relaxed state.” Subsequent correspondence showed that this awareness, or consciousness under anaesthesia was not all that rare, and one doctor underlined the moral which I have been trying to paint “Modern anaesthetic teaching is tailored solely for the (ill patient), as if one were training unqualified personnel who are unable to assess their patient. The ultimate effect of this teaching is actually to increase anaesthetic morbidity and mortality. . . .”

Now that I have retired from trying to keep up with the “literature” one of my favourite pieces of reading is the Year Book of Anesthesia, so admirably edited, with comments, by your Dr. Stuart C. Cullen. Dr. Cullen is a man after my own heart. Without being rude, his comments manage to prick the inflated balloon of pomposity or to insinuate that a patient is surely more than a pithed heart-lung preparation. I quote some: “older anaesthetists prefer anesthetizing rather than paralyzing patients”; “In these days of electronic gear, one is inclined to overlook the useful information that can be obtained from learning how to listen to a heart”; “As in many circumstances, it is not the agent but the manner in which it is used that determines the response.” Whenever I read these, I imagine Ralph’s quiet chuckle over his pipe as he, nodding his head in agreement, reads them as well. For if our art is to remain deeply rooted in humanism we must put our priorities in their order—clinical anaesthesia, teaching, and research.

I cannot stop without saying which way I think our specialty is going to go in the next generation. I have already referred to the invasion of the computer, and I am sure its application will be extended to monitoring our patients’ progress, altering the machines automatically without the doctor needing to take any action. This I think will free the anaesthetist to use his special skills more easily—whether in the physiology or respiratory function laboratory, in the intensive care unit, or elsewhere. This is an exciting prospect, and will continue the proud tradition of progress in our specialty which has now been advancing rapidly for almost fifty years.

References