As the editorial doors of the Canadian Journal of Surgery swing open, the readers of the new journal are asked to look back at the lives of famous surgeons in Canadian history. The lares of our surgical household are being dusted off and set up on their rightful pedestals.

In the first issue, the figure of Francis Shepherd was restored by the skilful pen of H. E. MacDermot.

Can genius be passed down to us like John Buchan’s magic ring† from one generation to another? What are the common elements of greatness in great surgeons?

Shepherd lived in the early days of inevitable expansion that followed the discovery of asepsis and anaesthesia. Edward Archibald was born 21 years after Shepherd and 23 years after William Osler. He knew the culture and tradition that these men helped to create in the McGill Faculty. Indeed, being separated from them by only one generation, he was to some extent, the product of their breeding. But Archibald recognized that the time had come when further problems of surgery must be solved by basic scientific research. Thus it was that he introduced a new era in Canadian surgery.

W. E. Gallie‡ has given us a description of the young Archibald when he saw him first. It was at a meeting of the newly formed Canadian Society of Clinical Surgery. “By his questions,” Dr. Gallie wrote, “his comments and skilful directions of discussion, (he) changed the character of surgical education in this country from the purely clinical to the scientific.

Edward Archibald was born in Montreal, August 5, 1872, and died there in 1945.‡ His family was of Scots-Irish descent. They had migrated in stages during the previous century. Beginning in Stirling.

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*Director, Montreal Neurological Institute, 3801 University St., Montreal 2.
†The Path of the King, Nelson, London, 1923.
‡Canad. M. A. J., 54: 197, 1946. This may be taken as a judgment of Archibald by one of his peers since Gallie is himself the founder of a vigorous school of surgery in Toronto.

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Scotland, they settled in the north of Ire-
land, then in New Hampshire, in Nova
Scotia, and finally, Montreal.

Jonathan Meakins, Archibald’s close
friend and colleague in medicine, said of
this odyssey: “One cannot help but surmise
that these wanderings of successive genera-
tions were due to some restless trait, or
resentment of things as they were, or
perhaps a seeking for something which
seemed just over the hill or across the
water.”

“Archibald inherited,” Meakins con-
tinued, “... an intellectual curiosity—seek-
ing, seeking, seeking after the truth... an
everchanging will-o’-the-wisp.”

His father was John Spratt Archibald, a
Montreal judge, and his mother, Ellen
Hutchison. They educated their children
with rare wisdom. All three sons took part
of their schooling in Grenoble, France,
where they became completely and suc-
cessfully bilingual. Each of them had a
distinguished career. The eldest son, Sam,
became Professor of Law at Cairo and later
a highly successful practitioner of law in
Paris. The other brother, John, was a Fellow of All Souls College, Oxford, and
later a barrister and solicitor in London.

Edward completed his courses in the
Montreal High School. He then graduated
in 1892 from McGill University, Bachelor
of Arts, winning a gold medal in modern
languages. He graduated in medicine in
1896. Without falling behind his class-
mates, he took the third year of his medical
training abroad, spending the first semester
at the University of Montpellier, France,
and the second semester at the University
of Freiburg, Germany.

For three years he served as resident
in the Royal Victoria Hospital, Montreal.
After that, he went to Europe for a year
of graduate work, studying pathology
under Aschoff and general surgery under
von Mikulicz. On his return he was ap-
pointed to the surgical staff of the Royal
Victoria Hospital, taking charge of the Dis-
 pensary and of surgical pathology.

But in the autumn of 1901 he was struck
down by pulmonary tuberculosis. He took
the cure at Lake Saranac, a whole year of
solitude in the sanatorium there. Thus he
learned to know that dread disease from
personal experience and from his contacts
with Dr. Trudeau and Dr. Brown, little
suspecting that he was himself to be the
first surgeon in the Americas to treat the
disease by surgical thoracoplasty in 1912.

But the year of solitude served him well
in other ways. It deepened his character
and gave him time to read and to reflect.
Enforced inactivity inevitably mellows the
mind and sharpens the perceptions of a
man of culture. Even time in jail has not
been lost for men of such varied character
as Jawaharlal Nehru, Mahatma Gandhi,
John Bunyan and many another.

In 1904, at the age of 32, Dr. Archibald
had the great good fortune to marry Agnes
Barron, a woman well qualified to be a
good wife even to that most difficult of
creatures, the successful surgeon. She was a
musician and had intellectual interests of
her own. But, most important of all—she
understood the kindly, exasperating, ab-
sent-minded genius she had married. She
appreciated his greatness, forgave his
foibles and created a happy home for him
on Westmount Boulevard. She bore him
four daughters who, in time, made their
own contributions to the happiness of the
family circle. How often does the success
of a professional man, and his failure too,
turn on the fortunes of wedlock?

Edward Archibald worked hard. He
seemed, at times perhaps, to be a slave to
clinic and laboratory and library, but he
succeeded in his ambitions, overcoming
many misfortunes. There is nothing so very
unusual in all this. Other men have done
as much, coming at last to local success
and to much greater wealth. But Archibald
was different from other men in ways that
are hard to describe. He was unique on
several counts, as a scientist, a scholar, an
educator, a gentleman of indefinable
charm. He was a handsome man with
strong features and charming smile. He
had courtly manners and a bubbling,
chuckling humour that in no way lessened
his dignity. He enjoyed the company of
men and was much admired by women.

As the years passed, he grew to be bald,
and deafness came to him as it had to other
members of his family. Although he was
an eloquent public speaker in English and
French, he usually talked softly in private conversation, almost in a whisper. Thus he drew people close to him where he could hear them as well as they heard him. At last he seemed to go about whispering as though spies were following him.

He delighted in prolonged discussions at the Mount Royal Club in Montreal or the Century Club in New York. But most of his discussions, and much of his profound thinking, were carried out in hospital corridor or on the street, where he might stand, oblivious of the flight of time, talking to some companion. He seemed to be always oblivious of the fact that he should have been hurrying to an appointment. That was one of his foibles. But he was sincerely sorry for it and politely apologetic, when he found he had kept someone waiting. I think he never quite believed in the passage of time, expecting it to stand still for him. Life was so full of exciting things to think about!

Dr. William Howell, Anaesthetist-in-Chief at the Royal Victoria Hospital, and medical historian in his spare time, probably waited more hours for Archibald than anyone, second of course to Mrs. Archibald. Nevertheless, with the exception of her, no one loved him more than Howell did.

Here is part of a jingle Howell wrote, when Archibald had just received an honorary doctorate from the University of Paris:

"You never published balderdash,
You never sold your soul for cash,
You never bragged or bluffed or lied,
You never were puffed up with pride.

When I consider your career
It seems to me it's rather queer
Without those aids I don't see how
You ever got where you are now.

You've only brains and industry,
Good breeding, kindness, modesty,
The faculty of making friends
With ne'er a thought to serve your ends;
Sound judgment, sympathy and skill
To comfort and to heal the ill.

O Edward, you would be sublime,
If only you could be on time."

After Archibald's death, Howell wrote from his retirement in England:

"Archibald played golf and played it well but he never talked about it. He was widely read and widely interested. He was not only an interesting talker but he was that rarity, a good listener. . . . Occasionally people presumed on his gentleness and got a taste of sarcastic wit that few knew he possessed, and no one risked being the butt a second time. . . . It is given to very few to inspire as much respect and affection as he did. He had a keen sense of humour; he was completely free from snobbery; he was generous to a fault."

Archibald played an active role in surgical societies in the United States and Canada early in the century. Let me quote Dr. Gallie again:

"We sometimes wonder that Canadians are received so kindly and with such a friendly welcome by our cousins of the United States. One of the reasons is Edward Archibald."

When he was president of the American Surgical Association in 1935, he took as the subject of his presidential address: "Higher degrees in the profession of surgery". The direct outcome of his stand in this matter was the establishment of the American Board of Surgery. Rarely has leadership borne good fruit so rapidly. But most of his lasting contributions were the result of his application of basic knowledge, and sometimes his own experimentation, to the problems of surgical treatment.

In 1906, he left Montreal for three months of work at the National Hospital in Queen Square, London, studying neurology under William Gowers and neurosurgery under the world's leading neurosurgeon, Sir Victor Horsley. It was in 1904 that Harvey Cushing had made his first "report upon the special field of neurological surgery". In 1908 Cushing's monograph on surgery of the head appeared in Keen's System of Surgery (276 pp.). In the same year Archibald's monograph on surgical affections of the head appeared in Bryant and Buck's American Practice of Surgery (385 pp.).
These two men were not unlike in native ability. Had conditions been different, they might well have developed the new field shoulder to shoulder. But Cushing was working at the Johns Hopkins University in America's first well organized surgical department. Professor William Halsted could, and did, delegate the development of this new field to his resident, Harvey Cushing. In Montreal, Archibald, with "thirty years of academic sterility behind him" (Meakins), set out singlehanded to develop the whole of surgery. In that same year (1908) he published a study of the surgical treatment of cancer of the rectum and another on tumour of the kidney. Twenty years were to pass before he could himself create the conditions for neurosurgical specialization.

After the monograph on affections of the head, Archibald was to write three other authoritative monographs: one on the diseases and injuries of the pancreas, in 1913, in Stedman’s Handbook of Medical Sciences; the second in 1927, on surgery in tuberculosis for Nelson’s System of Surgery; and the third on surgical treatment of pulmonary tuberculosis, in 1936, in the Oxford System of Surgery. This indicates the changing focus of his primary preoccupation.

He carried out research into the nature of interstitial pancreatitis, which he called "œdema of the pancreas" and showed experimentally that acute pancreatic necrosis is due chiefly to the presence of bile in the pancreas.

Between 1913 and 1936 he published 29 articles on tuberculosis. From 1909 to 1920 (with two years out for military service, as Major in the Canadian Expeditionary Force in France), his particular interest lay in surgical treatment of intestinal tuberculosis. After that he turned to studies of the control of respiration and the surgery of the thorax. In this new field he was a true pioneer and he has, with good reason, been called the father of thoracic surgery in America.

In 1923, McGill University named Archibald Professor of Surgery and Chairman of the University’s Surgical Department. But, unfortunately, the man who was President of the Board of Governors of the Royal Victoria Hospital was not willing to see him advanced from Surgeon to Chief Surgeon of the Hospital. He was not always punctual, it was said. Consequently, Sir Henry Gray was brought out from Scotland to be Chief Surgeon.

During the next five years Professor Archibald had very few hospital beds under his control and was not able to organize a department. But, with patience and kindly forbearance, he carried on and devoted himself to a promising group of younger surgeons (and this was something new): Scrimger, Armour, H. Ballon, Dawson, M. Kaufman, McIntosh, Miller, Webster, Wilkie and others.

In 1928 Gray resigned from the Royal Victoria, and Archibald became Chief Surgeon. He began at once the departmental organization which had been too long delayed. In January of that year he invited Wilder Penfield and William Cone to come to Montreal to develop neurosurgery in his department. Nearly all the funds he was able to raise for educational and research purposes went to promote this new project—his project, but one for which he asked no credit!

Six years later, in 1934, the Montreal Neurological Institute was opened to house the work that he had started on the nervous system. In the opening exercises, Professor Archibald spoke first, but briefly:

"To gather knowledge, and to find out new knowledge, is the noblest occupation of the physician. To apply that knowledge with understanding, and with the sympathy born of understanding, to the relief of human suffering is his loveliest occupation; and to do both with unassuming faithfulness sets the seal on the whole."

Only a true scholar could have spoken with such Shakespearian beauty, and only Archibald would describe the physician’s occupation thus. It was his credo, the way of life that he had set himself.

He closed his remarks with no suggestion that he had had a hand in the creation of that Institute:

"Now will those whose joy it will be to work here step forth happily, with quick-

*Neurological Biographies and Addresses, Foundation Volume of the Montreal Neurological Institute, Oxford University Press, 1936.
ended pace, upon a new high road! And we, going upon our own occasions, wish them God speed."

It is comparatively easy to describe a physician's work and to catalogue the honours that come to him because of his scientific contributions. Archibald was made an Honorary Fellow of the Royal College of Surgeons of England and the Royal Australasian College, the American College, the Association of Surgeons of Great Britain and Ireland. He was made a corresponding member of the Surgical Societies of Rome and Paris. He was given honorary doctorates by the Universities of Paris and McGill and elected to many learned societies.

One honour, that would have pleased him more than any other, came after his death. This was the creation of the Archibald Memorial Research Fund at McGill University, organized by Gavin Miller, who had been made Professor of Surgery, and contributed to by his friends, among whom was J. W. McConnell. This has been used by Professor Miller and by Professor Donald Webster to help young surgeons. It will be used for this purpose always.

The difficult task is to describe the man and his mind and his spirit. Archibald was different from other physicians, as I have said. What made him so? This is the question I would like to answer for those who did not know him, especially for those young surgeons who are now going upon their "own occasions".

So many surgeons lack the finer perceptions that might have come to them from a broad early education. They read little, express themselves poorly—have little to talk about in general company. Most of us feel, all too often, the lack of something that Archibald had in rich measure.

He brought to his professional work the breadth of vision that comes from education in many languages, a delicate perception from many cultures. He continued his vivid interest in life outside the operating room. I suspect that he sometimes longed for the leisure to follow these other interests, the leisure he had never known since that year of solitude at SARANAC Lake.

In 1940 Archibald wrote to his friend, Dr. William Francis, curator of the Osler Library, praising the contribution that Francis had made to the 70th birthday celebration of Harvey Cushing. Then he continued, saying to his friend, Francis, the sort of things he was apt to say in random conversation:

"... Yours has been an ideal life, fulfilling a worthy ideal with quiet tenacious enthusiasm, breathing a clean air untainted by the dust of the arena. Our own Archibald crest bears the 'Palma non sine pulvra'. But you disprove that general truth, or you prove the rule of the exception, by gaining the palm without raising a dust. I often envy you... (Your contribution) is worthy of your own 'Chief' (Osler). It is really Oslerian. I find the vivid happy phrases, le mot juste, the little merry quip, the light touch of scholarship, the deeper love of the older, the finer literature—and all suffused with a warming glow of friendship, so obviously sincere... all those things—and more—that characterized that great man. You inherited his spirit; nobody could fill his shoes. But the spirit is that which maketh alive."

Then he referred to another friend, "Billy Howell", confined to bed with recurring anginal pain. "... I cabled him. Quel sacré cochon que ce diable qui s'appelle l'angine! Non Angeli, sed Angina. But the old priestly pun* is sadly inappropriate. Yours ever, 'Eddie' (Archibald).

In reply to this letter, Francis began:

"The carpenter said nothing but 'the butter's spread too thick'."

Archibald had many friends whose minds met his like flint to steel. For six years before the world war broke out in 1914, Jack McCrae lived as a bachelor in a top floor flat of the Archibald home; Jack McCrae who was to write the poem "In Flanders Fields", and then to die and stay behind, to sleep where "poppies grow". They must have been, in some ways, kindred spirits.

It is not for us to enquire into Dr. Archibald's religious faith. But on one occa-

* Pope Gregory, seeing blond Anglo-Saxon slaves in the market of Rome, exclaimed, "Non Angeli, sed angeli" and sent Augustine to proselytize the natives of England.
occasion, after dinner, he and I had a long discussion that turned on the Old Testament. As a result I gave him a new edition of the Bible at Christmas. His letter of thanks, December 26, 1936, was in part as follows:

"... I was touched by your remembrance of me; and I was moved by the Book in this new setting. I had seen it in Burton's bookshop and wanted it, but denied myself.

"It's curious, yet natural enough, to find that my five weeks in India last spring has added much to my understanding of the Old Testament. As indeed also of the new. One sees more clearly the evolution of religious thought and feeling, working toward that part of Revelation which was Christ. But we are also working out our own revelation gradually, piecemeal, adding daily to that central revelation, by Reason as well as by Emotion. That surely was part of the plan of omniscience.

*He had accompanied his friends, Dr. and Mrs. J. W. McConnell on this epic journey.

"In my later years, I read the Book again, and see more clearly the greatness of the plan and see also the creature using mind as well as heart, himself working out, though so gradually, the plan of the Creator."

Edward Archibald was a man forever seeking the truth in his personal life, as in his professional problems. With unassuming zeal, he pressed toward this goal, blind to the will-o'-the-wisps that beckoned to other men who crowded past him in their punctual round of daily living.

"To gather knowledge," he said, "and to find out new knowledge, is the noblest occupation of the physician. To apply that knowledge with understanding, and with the sympathy born of understanding, to the relief of human suffering is his loveliest occupation; and to do both with unassuming faithfulness sets the seal on the whole."

I am grateful to many for guidance in the collection of material: Dr. Archibald’s daughter, Margaret, his friend, William Francis, Curator of the Osler Library at McGill University, Donald Webster, Professor of Surgery at McGill, and others.

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