Papers and Originals

The Oslerian Tradition*

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Sir William Osler died on 29 December 1919, nearly 50 years ago. He was born in Canada in July 1849, so that his life spanned the reigns of Queen Victoria, King Edward, and King George. Anyone, therefore, who enjoyed his friendship during the last 14 years of his life in Oxford is likely to be 80 years old or more. I was privileged to be one of these, and it is probably for this reason that our President has asked me to deliver this oration. He had, indeed, little choice if he wished to employ one of Osler's friends for the task. I think he should really have asked our revered friend Sir Arthur MacNalty to call upon his memories, for he knew Osler for several years before he came into my life. However, I could not refuse so honourable an assignment, and I will do my best to give some idea of Osler as I knew him, and to suggest why the Oslerian Tradition is still so lively an inspiration to medical men in the English-speaking world.

In 1908 I was a second-year undergraduate at Pembroke College, Cambridge, reading for the Natural Sciences Tripos, and could have no claim on the notice of the Regius Professor of Medicine at Oxford, except that we had a particular interest in common—the life and writings of Sir Thomas Browne, of Norwich. In that year my friend Cosmo Gordon, of King's College, and I conceived the idea of compiling a bibliography of Browne's works, both of us having already begun to form collections of the books. In those days it was still possible for impecunious students to make significant collections of early writers, even incunabula, the cradle books of the printed word, being readily obtainable at a bookstall in the Cambridge marketplace. Gordon and I realized that it would take years to produce an adequate bibliography, and that it would have to be founded on other collections besides our own. It was well known that Osler possessed the largest Browne collection in existence. He had been introduced to Browne's influence while a schoolboy in 1866, and bought his first copy of *Religio Medici*, the Boston edition of 1862, in 1867—the very same book that lay on his coffin in Christ Church chapel through the last night of 1919. Sir Thomas Browne, physician and humanist, was the lifelong hero of Osler, another physician and humanist, both Fellows of this royal college, to whom their successors can look for inspiration as long as the college may survive.

It was in 1909 that Gordon and I wrote to Osler asking for permission to see his library, using our projected bibliography as the excuse for our temerity. Kindness to one's juniors is an important element in the Oslerian Tradition, and so, of course, our request was met by an invitation to stay at 13 Norham Gardens, the house in Oxford known to medical men all over the world as "The Open Arms." Osler had recently been visiting Italy, and had written to a friend in Philadelphia: "I enclose you a little prayer to St. Cosmas and St. Damian, our patron Saints, which may be useful. I have made a pilgrimage to their mother church, and have burnt a candle—a small one—for my surgical colleagues. The instruments, with which they

cut off a leg which had a cancer and transplanted the sound leg of a just-dead man, are carefully preserved in the church, with an arm of each Saint and a bottle of milk of the Virgin Mary."

Back in Oxford, Osler still possessed, when we came to his house, some gaudy coloured prints of the saints, whose rather juvenile features he pretended bore a resemblance to those of Cosmo Gordon and myself. Cosmo's name suggested a closer relationship, and we were immediately dubbed St. Cosmas and St. Damian. Osler often thereafter addressed me in his letters as Damian. My sanctification has always been accepted in Oslerian circles, little as I have deserved it, having never during my surgical career transplanted any human tissue more complex than blood. It has fallen to others to transcend more recently the miracles of the saints.

Sir William Osler, aged 63.

Thomas Browne's Influence

It was not surprising that Osler was so taken with the prospect of our *Bibliography of Sir Thomas Browne*. He had said in 1902 to the Association of Medical Librarians that "we desire to foster among our members and in the profession at large a proper love of books." He remarked that, strictly speaking, "bibliography" means the science of everything relating to the book itself, and has nothing to do with its contents, but later in the same address he added that the "true bibliophil cares not so much for the book as for the man whose life and mind are illustrated in it," and, of course, Osler himself in addition valued highly the historical associations of a book. Browne's writings, in particular the *Religio Medici*, were ever in his mind. Quotations from Browne were constantly springing to his lips. His literary style frequently showed plain signs of being modelled on Browne's, and some of his addresses were Brunonian in their aphoristic and moralistic content. But compilation of a bibliography is a slow process, particularly when it has to be done in the spare moments of a medical training, and is subjected to the distractions introduced by a world war. Osler sometimes felt impatient, and one of his last postcards to me, written on his death-bed, asked reproachfully when the book would be done. But, alas, he never saw it. It had been incubated for

* The first Oslerian oration delivered at the Royal College of Physicians, 16 October 1968.

nearly sixteen years, and when it was finally published in 1924 I could only dedicate it to his memory—and what memories this held for me! I was granted the friendship of a man thirty-eight years my senior, the holder of four successive chairs in famous schools of medicine, the author of one of the most successful textbooks of medicine ever written, an outstanding teacher and clinician, and a book collector of width tempered by discrimination, who used his books fruitfully and with generous consideration of the needs of others.

Osler's generosity was notorious. If an important book which he already possessed came to his notice he at once began to think what other medical library might lack it, so that he could fill the gap. Thus several copies of Harvey's *De motu cordis* passed through his hands, and he could never resist buying the first edition of the anatomical *Fabrica* of Vesalius, knowing that he could always find a willing recipient. In fact, he bought so many copies that he could not always remember where they had gone. In 1903 he bought three copies, saying it was not a book that should ever be left on the shelves of a bookseller, and sent one to McGill University. Six years later, when in Rome, he sent another copy to the same library. This reckless generosity sometimes left him so short of money when abroad that he had difficulty in paying his fare for the return home. As a tradition, Osler's attitude is hard for us to imitate, for, partly owing to his example, the books have largely disappeared from the market.

Belief in "Culture"

A tradition of Osler's use and love of books can, however, still influence our minds. He believed that "culture," the word that made Hermann Goering reach for his gun, was of the utmost value to medical men. "In no profession," he said, "does culture count for so much as in medicine, and no man needs it more than the general practitioner, working among all sorts and conditions of men, many of whom are influenced quite as much by his general ability, which they can appreciate, as by his learning, of which they have no measure." The practice of physic should no longer be as by Dr. Johnson's friend, Robert Levett, "obscurely wise and coarsely kind." The poorer the conditions in which a doctor has to work the more necessary is it for him to keep his mind free and filled with the liberal spirit necessary for the proper attitude to our human problems. Wide reading, he maintained, was possible even though the time for it was restricted to half an hour in bed before going to sleep and an open book on the dressing-table in the morning.

Sir Thomas Browne, advising a student what to read, was in favour of deep learning—Hippocrates, Galen, Vesalius, Spigelius and Bartholinus, the Herbalists, the Apothecaries, Fallopius, Fabricius, Paré, Vigo, the Chemists, "and be sure you make yourself master of Dr. Harvey's piece, *De circulatione sanguinis*, which discovery I prefer to that of Columbus"—an opinion which I have seen Osler taste with particular delight. His prescription for his students was somewhat lighter fare—the Bible, Shakespeare, Montaigne, Plutarch, Marcus Aurelius, Epictetus, *Religio Medici*, *Don Quixote*, Emerson, and Oliver Wendell Holmes. He might well have included *Sherlock Holmes*.

Dedicated Teacher

To students, Osler's reputation is an important element in the tradition of their training. He was a dedicated teacher, and it may seem extraordinary that he said of himself that he wished to have as his epitaph: "Here lies the man who admitted students to the wards." He was addressing the New York Academy of Medicine in December 1902, and quoted John Abernethy of St. Bartholomew's as saying that "the Hospital is the only proper college in which to rear a true disciple of Aesculapius." He had to say this because at that date in most New York hospitals and in other places students were admitted

to demonstrations in lecture halls but not to the wards, where their presence was regarded "as hurtful to the best interests of the patients." This had been the rule in Philadelphia when he went there. Osler had insisted that contact with patients in the hospital wards was of fundamental importance. "It is what may be called the natural method of teaching, the student begins with the patient, continues with the patient, and ends his studies with the patient, using books and lectures as tools, as means to an end. The student should start, in fact, as a practitioner, as an observer of disordered machines, with the structure and orderly functions of which he is perfectly familiar. It is a safe rule for the junior student in medicine and surgery to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself."

I am emphasizing this seeming truism with memories of recent rumblings from patients who have objected to allowing themselves to be examined by students. This attitude has somehow become mixed up with the idea that hospital patients are guinea-pigs, the subjects of experiment. Respect for the personality of the patient must indeed never be compromised or forgotten, and Osler was the last to overlook this principle. I was never myself able to see Osler teaching in the wards, but I have the assurance of others who did so.

Osler at Johns Hopkins adopted a somewhat flamboyant approach to his ward rounds. He was punctual in attendance, but arrived at the hospital building in a rush with coat-tails flying, his arms thrown wide in a welcome to his attendant group of juniors and students. Some of his colleagues disapproved of this, regarding it as an exaggerated sense of showmanship, unbecoming in a Professor of Medicine. I have indeed heard two of our most senior medical scientists criticize this side of Osler's irrepressible enthusiasm; they were both struck by his being too evidently a "showman" to suit their own more restrained and scientific approach. Yet Osler, having reached the patient's bedside, was the perfect exponent of clinical tact and consideration. In person he was small, with a drooping moustache and an "olivaster" complexion, which he shared with William Harvey; but his eyes, though dark, were brilliant, and he would keep their sympathetic gaze fixed on the patient's face throughout the questioning. The patient was made to feel that he was the most important person present. Osler addressed him by his name with friendly interest, and gave him confidence. In Harvey Cushing's *Life of Osler* there is an admirable page of bedside snapshots labelled Inspection, Palpation, Auscultation, and finally Contemplation, the last one illustrating Osler posed characteristically in mental summation of all that he had observed. I do not mean to imply that Osler was exceptional in this sort of bedside behaviour—far from it; but he was so immensely popular and successful as a teacher that his example could not fail to create a tradition calculated to inspire others even beyond the generations of students immediately affected.

An Opinion on Ageing

As a teacher Osler had a somewhat exaggerated belief in the inevitable deterioration of the human brain as age advances. He thought that by the age of forty most men were losing their power of adaptation. Silvering of the hair, or loss of it, indicated a probable inability to accept readily any new ideas. He claimed Harvey as a supporter of this opinion, quoting his complaint that few men above forty seemed able to receive the doctrine of the circulation of the blood. He noted also how, in his own time, the bacterial origin of disease could gain easy acceptance only by the generation in whose time it was announced. The warning was wholesome, but retirement of all teachers at this age was scarcely practicable. He repeated this idea in his valedictory address at Baltimore, when he himself was fifty-five years old. He called it a harmless obsession, yet extended it to the thesis that men over sixty were useless in commercial, political, and professional life, concluding with a

humorous reference to Anthony Trollope's suggestion of an institute to which men aged 60 retired for a year's quiet contemplation before "a peaceful departure by chloroform." He admitted that he felt somewhat dubious about this, as he was himself nearing the limit set. The faculty at Baltimore fully understood the spirit in which Osler had spoken, but nevertheless the storm broke in the newspapers next morning, and it was a long time before this unfortunate pseudotradition, called "Oslerization," was allowed to die down.

Osler's belief in the value of young and adaptable minds as the prime source of advances in scientific medicine was perfectly genuine; yet he certainly underrated the worth of experience in research, though he admitted its importance in the practice of medicine.

Primarily a Clinician

I am told that an eminent scientific physician of a later generation criticized Osler as having no claim to be an "original thinker" (such as himself). Osler was, he said, merely a "collector" who accumulated lists of symptoms referable to diseases already recognized. It is true that Osler was not an "original thinker" in the sense that he had advanced new theories of disease or even described many previously unrecognized conditions. His name is generally found as an eponym for only one disorder, the polycythaemia rubra of Vaquez.¹ He did not carry out any laboratory research other than intense application to morbid anatomy at McGill. He would not have complained that his work had gone unrecognized, since his strength did not lie in work at the laboratory bench.

The Oslerian Tradition in medical advances insisted on the importance of careful and expert clinical observation coupled with wide knowledge of the symptoms of disease, these two forms of "collecting," if you like to call them so, being co-ordinated to form the basis of accurate diagnosis. His own way of putting this was in the words: "It is only by persistent intelligent study of disease upon a methodical plan of examination that a man gradually learns to correlate his daily lessons with the facts of his previous experience and that of his fellows, and so acquires clinical wisdom." In another passage Osler said: "In the fight which we have to wage incessantly against ignorance and quackery among the masses and follies of all sorts among the classes, *diagnosis*, not *drugging*, is our chief weapon of offence."

Osler was, in fact, primarily a clinician, intent on establishing the surest means of arriving at a sound diagnosis, utilizing every form of clinical aid offered by the laboratory, but not presuming to elevate his function to the level of a pure science. He could admire and appreciate the great value of "original thinking" to the advance of medicine, but his own thought was directed to another goal—the relief of suffering by hitting the bull's-eye in the diagnostic target as often and as quickly as possible. The tradition of this goal in medicine is surely not to be despised. Moreover, the theories of the "original thinker" frequently do not stand the test of time, and may touch only a restricted field. They may have helped science on its way, but can suffer eclipse when another "original thinker" makes another better theory or more fruitful experiments. Osler would be content with his anonymity. The ripples of his influence would spread widely and for an indefinite time, carried first by the students he had trained himself and then unknowingly by their successors. In addition let it not be forgotten that he was elected a Fellow of the Royal Society of London in 1898, at about the same time as J. S. Haldane, Henry Head, and E. S. Starling.

One of Osler's claims to fame is still recognized to be the textbook entitled *The Principles and Practice of Medicine*,

written during his early years at Johns Hopkins and first published in 1892. The book was instantly welcomed as a masterpiece in its own line, and has passed through innumerable editions and revisions by Osler and his successors, but the day of the comprehensive textbook written by one man is quickly passing, and *The Principles and Practice* has been largely superseded. Its method was based on the author's pre-eminence as a "collector." Each disease was analysed under headings: Definition, Etiology, Morbid Anatomy, Symptoms, Diagnosis, Prognosis, and Treatment. It was a *tour de force* for a single writer to cover the field, but as knowledge increases its accomplishment becomes impossible. Osler carried it through by writing in a clear sober style based on vast experience and a prodigious memory. In the first edition it filled over a thousand large pages, and Osler himself would have been the last to recommend any student to read it through. It was intended to supplement the tradition of his teaching, the student using it as a book of reference while he accumulated clinical experience. The book is itself traditional chiefly as a pattern of exposition of clinical facts and their implications. Moreover, it is well known that a literary authority at Oxford made the pronouncement that Osler had "succeeded in making a scientific treatise literature."

Wilder Penfield's book *The Epic of Alan Gregg* supplies an important sidelight on the consequences of Osler's method of exposition. Frederick Gates, an administrator who had been deeply concerned in the affairs of the University of Chicago, was asked by John D. Rockefeller to advise him in the disposal of the important benefaction he wished to make to medicine. Gates had read *The Principles and Practice* in 1897 and perceived that Osler had set aside the traditional and unproved forms of treatment of disease. He had been called a "therapeutic nihilist," or, more accurately, an "iconoclast," since he was introducing for each patient the exhaustive pathological study in which German scientists had excelled. To this he was adding a method of bedside teaching derived from the Edinburgh school of clinicians, developed further by him at the Montreal General Hospital. It was the beginning of a new era of specific tests and therapy in medicine throughout the world. Osler was clearing out the dead wood and making a way for the advent of scientific medicine. Frederick Gates saw in his honest scholarly writing the promise of a great advance, and as a result the Osler tradition was largely responsible for the advice given by Gates in formulating the principles embodied in the vast benefactions of the Rockefeller Foundation.

Osler's Historical Sense

It is noticeable that on the first page of *The Principles and Practice* the section on typhoid fever is given a long Historical Note, but thereafter this heading is not used. Osler's historical sense was so strong that this abstinence must have been dictated by realization that systematic "Historical Notes" would have added too much to an already unwieldy volume, but it must have been a hard decision. Indeed, the Oslerian tradition is, I suppose, now centred more on his doctrine of the value of medical history in teaching and in practice than on anything else. His deep interest in the story of Dr. William Beaumont and Alexis St. Martin, the soldier with a hole in his stomach, is well known. It was one of the most dramatic chapters in the history of gastric physiology, and Osler made no secret of the fact that after the death of St. Martin he expected that his stomach would be deposited in the United States Army Museum in Washington. But St. Martin was French Canadian, and when he died Osler was warned that if he attempted to hold a postmortem he would be killed. For some time the dead man's grave was guarded every night by a number of his compatriots armed with rifles.

The Historical Club at Johns Hopkins was initiated by three men, John S. Billings, Welch, and Osler, who attended its meet-

¹ Sir Archibald Garrod in 1921 suggested that Osler's name should also be attached to a hereditary malady characterized by multiple telangiectases associated with haemorrhages. This would certainly have been a useful short-cut in nomenclature.

ings regularly for fifteen years, regarding this as a most important element in the education provided by the medical school. He prescribed a grounding in medical history not only for the students but also for his colleagues. A course was mapped out for the Historical Club to devote successive sessions to the systematic study of the great figures of the past, beginning with Aesculapius and Hippocrates. The club almost met its Waterloo when it came to Galen. The morsel was too large to swallow, and nearly choked the assembled devotees of the Muse Clio. Nevertheless the club survived, and Osler concentrated on the study of Plato, whose definition of medicine was prefixed to *The Principles and Practice*: "This is an art which considers the constitution of the patient, and has principles of action and reasons in each case." It was, indeed, remarked that at this time Osler's addresses contained almost as many references to Plato as to Sir Thomas Browne—a notable change.

Osler delighted his audiences by painting eloquent word pictures of supposed climactic events in medical history, as, for instance, in his Harveian Oration of 1906. He was anxious to get the full effect of describing what he called a *dies mirabilis* in the history of this college, beginning: "At ten o'clock on a bright spring morning, April 17, 1616, an unusually large company was attracted to the new Anatomy Theatre of the Physicians' College, Amen Street. The second Lumleian Lecture of the annual course given that year by a new man had drawn a larger gathering than usual, due in part to the brilliancy of the demonstration on the previous day, but also it may be because rumours had spread abroad about strange views to be propounded by the lecturer," and so forth. But this semifictional method of dispensing medical or any other sort of history is dangerous. We now know that Harvey made no startling revelation on "that bright spring morning," nor for many years afterwards. However, some licence must be allowed to the man who so successfully popularized and established the significance of medical history to all concerned in its practice. It is, I think, true to say that a growing interest in medical history has played a large part in stimulating the deep and widespread cultivation of the history of science in general that we see today. The Oslerian tradition has asserted itself in a way that would have gratified its originator.

There can be no doubt that Osler acquired his knowledge of medical men and their writings in the hard way—by solid reading. He was not one to employ a literary ghost who would provide him with apt quotations with which to pepper his addresses in order to give them a false literary glitter. His knowledge was profound, his memory phenomenal, and his use of these faculties was entirely convincing. It could also be embarrassing to his friends. Imagine receiving a postcard asking: "Has the poem of Ariphron on Health—Athenaeus xv.63,702a, ever been translated? Rabelais refers to it—introduction to bk. iv. If not translated why not do it?" This was written in February 1919, when he was already sickening for his last illness.

An Astonishing Performance

In the last year of his life Osler, to his surprise and delight, was elected president of the Classical Association in Oxford. He afterwards told his friend Welch, from Johns Hopkins, that he took more trouble over this presidential address than over any other of his career, and it was an astonishing performance for a man so stricken with years and multifarious duties. Its style has much of the flavour of Sir Thomas Browne, it carries lightly a heavy burden of classical learning and allusion, it satirizes humorously and without offence the rather antiquated character of the Oxford school and its Greats, and it advances a powerful plea for the greater recognition of the claims of science and modern learning in the University. Osler even twitted the classical dons on their scant knowledge of the great classical

forerunners of modern science. "In the only school," he said, "dealing with the philosophy of modern thought, the sources of the new science that have made a new world are practically ignored. One gets an impression of neglect in the Schools, or at any rate of scant treatment, of the Ionian philosophers, the very fathers of your fathers. Few 'Greats' men, I fear, can tell why Hippocrates is a living force today, or why," he continued, "a modern scientific physician would feel more at home with Erasistratus and Herophilus at Alexandria, or with Galen at Pergamos, than at any period in our story up to, say, Harvey. Except as a delineator of character, what does the Oxford scholar know of Theophrastus, the founder of modern botany, and a living force in one of the two departments of biology?"

It was not only the division of "the two cultures" that he deplored. "It is not the dominance," he said, "but the unequal dominance that is a cause of just complaint. As to methods of teaching—by their fruits ye shall know them. The product of 'Greats' needs no description in this place. Many deny the art to find the mind's construction in the face, but surely not the possibility of diagnosing at a glance a 'first in Greats'! Only in him is seen that altogether superior expression, that selfconsciousness of having reached life's goal, of having, in that pickled sentence of Dean Gaisford's Christmas sermon, done something that not only elevates above the common herd, but leads not unfrequently to positions of considerable emolument. . . . As a discipline for the mind for the few, the system should not be touched, and we should be ready to sacrifice a holocaust of undergraduates every year to produce in each generation a scholar of the type of, say, Ingram Bywater. 'Tis Nature's method—does it not cost some thousands of eggs and fry to produce one salmon?"

He even dared to accuse the classical scholars of virtually ignoring Aristotle as the founder of modern biology, and of making an unfortunate break in the Humanities by their treatment of Lucretius, "the greatest nature-poet in literature." To be fair, he also deprecated the overspecialization of the scientists, whose salvation lay in recognition of a new philosophy—the *scientia scientiarum* of which Plato speaks; though here Osler admitted a hesitant approach through being like Dr. Johnson's friend Oliver Edwards—he never succeeded in mastering philosophy; cheerfulness was always breaking in.

Teacher and Friend

I mentioned at the outset of this address that kindness to one's juniors was an important feature of the Oslerian Tradition. This kindness he extended to all the students who ever came into his sphere of influence, and keeping up with old pupils in later life was partly responsible for his habit of corresponding largely on postcards. Receipt of a postcard from Osler was not a sign that the communication was trivial; it was simply the result of the physical impossibility of writing all the letters needed to keep his innumerable friendships green. Each student was made to feel that his teacher was his friend, and Osler was at his best when addressing student bodies. In some degree he tended to speak as a lay preacher, though he could preach without pomposity, and tempered the austerity of his view of how a student's life should be regulated with a tolerant humanity and often with humour. In his celebrated address on "The Student Life," when saying farewell to American and Canadian medical students in 1905, he remarked that he once asked a well-known story-writer what time he found best for work, and was told: "Not in the evening and never between meals." This Osler thought might appeal to some of his hearers. He went on to say that during a visit to Bedlam the physician in charge had mentioned two great groups of patients, those who were depressed in the morning and those who were cheerful, suggesting that spirits rose and fell with the body temperature. This, Osler suggested, was the explanation of the

extraordinary difference in the habits of students concerning the best time for work.

"Outside of the asylum," he said, "there are the two great types, the student-lark who loves to see the sun rise, who comes to breakfast with a cheerful morning face, never so fit as at 6 a.m. What a contrast to the student-owl with his saturnine morning face, thoroughly unhappy, cheated by the breakfast bell of the best two hours of the day for sleep, no appetite, and permeated with an unspeakable hostility to his vis-à-vis, whose morning garrulity and good humour are equally offensive. Only gradually, as the day wears on and his temperature rises, does he become endurable to himself and others. But see him really awake at 10 p.m. while our blithe lark is in hopeless coma over his books, from which it is hard to rouse him sufficiently to get his boots off for bed; our lean owl-friend, Saturn no longer in the ascendant, with bright eyes and cheery face, is ready for four hours of anything you wish—deep study or 'Heart-affluence in discursive talk'—and by 2 a.m. he will undertake to unsphere the spirit of Plato. In neither a virtue, in neither a fault, we must recognize these two types of students differently constituted, owing possibly to thermal peculiarities."

Osler's tolerance did not, however, prevent him from speaking very forcibly, even in public, when the occasion seemed to him to demand it. Yet, somehow, when he did so, it did not give offence and was effective. In personal relations, also, he could never quarrel with anyone. His senior colleague at Philadelphia, when he first went there, was William Pepper. His very name suggests he was not an easy man to live with, and Osler by his reforming zeal and enthusiasm no doubt provided a wholesome amount of irritation calculated to stimulate petty reaction. Osler delivered a generous tribute to him after his death, yet Osler's biographer, Harvey Cushing, lifted a corner of the veil over their relations when he recorded that Osler "never heeded pin-pricks. He had lived for five years in Philadelphia with Pepper and kept on the friendliest terms, and would not have recognized Jealousy had he met her, green eyes and all. She and Gossip were almost the only people who never sat at his table or sojourned under his roof. 'He that speaketh a matter separateth many friends.'"

Osler was always pleased to recall William Harvey's last exhortation to the Fellows of this college, "to search out and study the secret of Nature by way of experiment, and also for the honour of the Profession to continue mutual love and affection amongst themselves without which neither the dignity of the College can be preserved nor yet particular men receive that benefit by their admission to the College which else they might expect." It was no doubt this unflinching friendliness and equanimity that was an important element in another large section of the Oslerian Tradition—his quite extraordinary capacity for overcoming discordant feelings among his friends and acquaintances, while inducing them to unite in forwarding some common cause. He was an incomparable stimulator of the formation of clubs and societies, particularly, of course, for the study of medical history. He not only "mixed" well himself, he also caused others to "mix" harmoniously. The outstanding example of this faculty was the successful amalgamation of a large number of medical societies in London into a single institution under one roof, this being the enlarged Royal Society of Medicine. Many other people, Sir John MacAlister most notable among them, played prominent parts in bringing this about. In fact, Osler's name was not mentioned in the medical journals at the time, though in reality it was he who had been the anonymous catalytic agent. He had stood at MacAlister's shoulder with suggestions and encouragement and had dropped hints in many other quarters where they were needed. He was never eager to take credit, being perfectly content to enjoy the result of his influence and witness the satisfaction of others.

It was most appropriate that in 1928 two young men, then students at Bart's, should found a society, the Osler Club of London, "to encourage the study of the history of medicine

and to keep green the memory of Osler." Forty years later Dr. Alfred White Franklin and Dr. W. R. Bett can look back with satisfaction on what they have achieved. The Osler Club has gone from strength to strength and is now the premier society of its kind in Great Britain. I can remember early meetings when the gathering consisted of perhaps eight distinguished visitors and five members of the club, the flame being kept burning by the enthusiasm of the two founders and their conviction that the Oslerian Tradition was a real thing to be kept in memory for all time. I am proud to have been designated a Friend of the Osler Club, a special order of chivalry instituted for older, and, I fear, elderly, members.

Collected Papers

There are two well-known volumes of Osler's collected papers. One, *An Alabama Student*, consists of a series of biographical studies, including, of course, William Beaumont and Sir Thomas Browne; the other, *Aequanimitas*, gives eighteen addresses delivered on a variety of occasions in America and Great Britain. The title of the second book is taken from the first address given as a valediction primarily to his students when he was leaving Philadelphia for Baltimore in 1889. He stressed first the value of imperturbability in both physician and surgeon, meaning coolness and presence of mind under all circumstances, calmness amid storm, clearness of judgement in moments of grave peril, immobility, impassiveness, or, to use an old and expressive word, *phlegm*. Though often misunderstood by the laity, it is a quality greatly appreciated by them. This Osler regarded as a bodily virtue. Equally important was the mental equivalent, *aequanimitas*, a quality so liable to be upset by the uncertainty which pertains not alone to our science and art, but to the very hopes and fears which make us men. In seeking absolute truth we aim at the unattainable and must be content with finding broken portions. He quoted the cynic who said that in prosperity our equanimity was chiefly exercised in enabling us to bear with composure the misfortunes of our neighbours. Yet he warned his hearers against the trials of the day that might come to some owing to large and successful practice. Over-engrossed in professional cares, they might discover too late that there was no place in their habit-stricken souls for those gentle influences which make life worth living.

He also issued the warning that we are apt to live too much for the present and too much in the future. It were better to think more of the past and recall with gratitude the men whose labours in the past have made the present possible. Twenty-five years later at Yale he modified this precept, though not in any way depreciating the value of the historical sense. He was offering what he called "A Way of Life," and it was summed up as "the practice of living for the day only, and for the day's work, *life in day-tight compartments*." This he claimed as a plain man whose life had never been worried by any philosophy higher than that of the shepherd in *As You Like It*:

Sir, I am a true Labourer, I earne that I eate; get that I weare; owe no man hate, envie no man happiness; glad of other mens good content with my harme: and the greatest of my pride, is to see my Ewes graze and my Lambes suck.

A man's duty, he believed, was always to do what is clearly at hand. Let the dead part of our personal lives bury its dead. Retrospection and introspection handicapped the lives of many men, the mistakes of yesterday paralysing the efforts of today.

As a philosophy this sounds superficial and therefore easy; yet in practice it is difficult. Osler claimed that any success he had attained depended on this principle. He illustrated it with examples from Aristotle, from Plato, from the life of Christ, from Bunyan, from Dr. Johnson, and finally from Walt Whitman, whose physician he had been for many years. He recalled a summer's afternoon when they were sitting together in the window of Whitman's home; they saw a passing group

of workmen, whom the poet greeted in a friendly way. He then said: "Ah! the glory of the day's work, whether with hand or brain. I have tried.

'To exalt the present and the real,
To teach the average man the glory of his daily work or trade.'"

In this way of life, that was Osler's, each one, he hoped, might learn to drive the straight furrow and so come to the true measure of a man.

A Solid Monument

The main theme of this address has been the Oslerian Tradition—that is, the influence that Osler's life and personality may have upon the outlook of succeeding generations of medical men when the man himself is gone. This is impalpable and elusive and therefore impossible to convey except in words. But he also left a more solid monument in the shape of a large library, which passed at his death to McGill University, Montreal. This library was formed over the years with a very definite end in view—that is, to illustrate and record with books and manuscripts the whole history of medical science. It was no haphazard collection formed by the mind of a magpie. Its aim was to direct the student to every aspect of the subject through a balanced selection of material. Osler had, of course, his special obsessions, such as Sir Thomas Browne, but in general his survey was sane and serious. This was demonstrated by the highly organized and original plan of the catalogue carefully laid down for the guidance of the two scholars, his cousin Bill Francis and R. H. Hill of the Bodleian,

who were designated to carry it into effect, under the direction, as it turned out, of Lady Osler.

The first section was entitled *Bibliotheca Prima*, to include the works of primary importance produced by the ancient civilizations of the East and by the greatest of the Greeks and the Arabians; by the middle ages, giving only the name of Roger Bacon; and by the sixteenth to the nineteenth centuries, including a special section on anaesthesia. This is followed by the *Bibliotheca Secunda*, with the names of lesser lights, though still important; then the *Bibliotheca Literaria* with Browne and Burton in the forefront, followed by the *Bibliothecae Historica*, *Biographica*, and *Bibliographica*, and ending with *Incunabula* and manuscripts. The organic whole, entitled *Bibliotheca Osleriana*, contains nearly eight thousand entries, and provides an extraordinary panorama of medical history in an easily assimilated form, a mirror of the mind that produced it. Osler, with the broad sweep of his multifarious interests and duties, could not provide the detailed scholarship needed for the minutiae of accurate annotation. This was supplied in full measure by the meticulous mind of Bill Francis—so full, indeed, was the measure that the years passed and it was not for a decade after Osler's death that the book was published. Lady Osler, compelled to continue living in "The Open Arms" together with the library for much longer than she liked, used to sigh and ask me in despairing tones would this man ever finish his task? But she realized that the foibles of a perfectionist must be respected and that Sir William would have approved. The catalogue as we have it is a monument to all the great physicians that have ever lived and the printed testimony to the value of the Tradition I have tried to define.

Distribution of Acute Leukaemia in Time and Space. Studies in New Zealand*

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Summary: The distribution of leukaemia in time and space was examined by tracing the date of onset and the place of residence in all cases of childhood leukaemia and of acute leukaemia in adults, totalling 1,003 cases, which occurred in New Zealand during the 12 years from 1953 to 1964.

Significant seasonal variations in the onset were found in adults but not in children. Time-space clustering did not occur in adults, but a significant tendency towards it was found in children aged less than 6 years. Since a similar tendency has previously been found by two other groups of investigators it is suggested that leukaemia in young children may have a different aetiology from that occurring at other ages.

Introduction

In 1963 Heath and Hasterlik described a "cluster" of patients with acute leukaemia in Niles, Illinois. In three years, among a population of about 20,000, there were eight cases of child-

hood leukaemia, nearly five times as many as would have been expected on the basis of the incidence in other parts of the same State. This report coincided with a reawakening of interest in the theory that human leukaemia, like that in many strains of laboratory mice, might be caused by viruses, and, although the authors merely suggested a relationship to an infectious process, the Niles cluster has been frequently interpreted as indirect evidence in favour of a viral origin of leukaemia.

More or less well documented instances of leukaemia clusters have since been published from many parts of the world, their individual size ranging from two cases upwards. Their significance has remained problematic, for chance alone must cause occasional aggregations of rare events. "The pertinent question is not whether unlikely events are occurring, but whether they are occurring more frequently than expected" (Ederer *et al.*, 1965). Great difficulty has been experienced in deciding whether the spacing or timing of any observed clusters exceeded the limits of chance probability, and conflicting answers to the problem have been published (Pinkel and Nefzger, 1959; Ederer *et al.*, 1964, 1965; Heath *et al.*, 1964; Knox, 1964; Mustacchi, 1965; Dowsett, 1966; Lundin *et al.*, 1966; Mainwaring, 1966; Goldenberg and Zarowski, 1967; Till *et al.*, 1967). There is agreement that, even if clustering could be shown to exceed expectation, this fact alone would give no information on the causes of the phenomenon.

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