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THE LIFE OF
SIR WILLIAM OSLER

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Mr Osler

The young Professor at McGill.

THE LIFE OF SIR WILLIAM OSLER

BY

HARVEY CUSHING

VOL. I

‘Thus there are two books from whence I collect my divinity: besides that written one of God, another of his servant nature, that universal and public manuscript, that lies expanded unto the eyes of all; those that never saw him in the one, have discovered him in the other.’

Religio Medici.

Third Impression

OXFORD
AT THE CLARENDON PRESS

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TO MEDICAL STUDENTS

IN THE HOPE THAT SOMETHING OF OSLER'S SPIRIT
MAY BE CONVEYED TO THOSE OF A GENERATION
THAT HAS NOT KNOWN HIM ; AND PARTICULARLY TO
THOSE IN AMERICA, LEST IT BE FORGOTTEN WHO
IT WAS THAT MADE IT POSSIBLE FOR THEM TO
WORK AT THE BEDSIDE IN THE WARDS

BECAUSE of Osler's interest in the history of his profession the effort has been made in these volumes to bring him into proper alignment with that most remarkable period in the annals of Medicine through which he lived and of which he was part.

Those who knew him best will appreciate the difficulties of compiling these present records, which are *mémoires pour servir*. Little pretence is made in them to do much more than let his story so far as possible tell itself through what he puts on paper.

His rare personality, spirit, and character stand out in his recovered letters, brief though they are. An appraisal of his professional accomplishments need not at present be attempted. Here are merely the outlines for the final portrait, to be painted out when the colours, lights, and shadows come in time to be added—colours and lights chiefly, for only one heavy shadow is cast, just before the end.

The author herewith expresses his deep gratitude to the many whose names occur in the following pages, and to a still larger number whose names do not, yet who have equally lightened his labour of love by innumerable kindnesses.

OXFORD,

August 1924.

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LIST OF ABBREVIATIONS IN VOL. I

A. A. P.	Association of American Physicians.
A. M. A.	American Medical Association.
B. A. A. S.	British Association for the Advancement of Science.
B. C. H.	Boston City Hospital.
B. M. A.	British Medical Association.
B. M. J.	British Medical Journal.
C. M. A.	Canadian Medical Association.
D. N. B.	Dictionary of National Biography.
E. Y. D.	Egerton Yorrick Davis.
F. R. C. P.	Fellow of the Royal College of Physicians.
H. M. S.	Harvard Medical School.
J. H. H.	Johns Hopkins Hospital.
J. H. U.	" " University.
M. G. H.	{ Montreal General Hospital. { Massachusetts General Hospital.
'Medico-Chi.'	'Medico-Chirurgical Society (Montreal).
M. R. C. P.	Member of Royal College of Physicians.
N. A. S. P. T.	National Association for the Study and Prevention of Tuberculosis.
R. C. P.	Royal College of Physicians.
R. P. M.	Regius Professor of Medicine.
R. V. H.	Royal Victoria Hospital (Montreal).
S. G. L.	Surgeon-General's Library (Washington).
S. G. O.	" " Office.
T. B.	{ Tubercle Bacillus. { Tuberculosis.
U. C.	University College (London).
U. P.	" of Pennsylvania.

PART I
THE CANADIAN PERIOD

‘Those who have written about him from later impressions than those of which I speak, seem to me to give insufficient prominence to his gaiety. It was his cardinal quality in those early days. A childlike mirth leaped and danced from him ; he seemed to skip upon the hills of life. He was simply bubbling with quips and jests ; his inherent earnestness or passion about abstract things was incessantly relieved by jocosity ; and when he had built one of his intellectual castles in the sand a wave of humour was certain to sweep in and destroy it. I cannot, for the life of me, recall any of his jokes ; and written down in cold blood they might not be funny if I did. They were not wit so much as humanity, the many-sided outlook upon life. I am anxious that his laughter-loving mood should not be forgotten, because later on it was partly, but I should think never wholly, quenched.’

EDMUND GOSSE ON ROBERT LOUIS STEVENSON.

CHAPTER I

BOND HEAD AND DUNDAS

WILLIAM OSLER, the youngest son in a family of nine, was born July 12, 1849, in a parsonage at Bond Head, Tecumseth County, near the edge of the wilderness in what was Upper Canada. How this came about, as to place, time, and circumstance, needs telling from the very beginning.

One of the old Canadian trails used by voyageur, missionary, and Indian led from 'Muddy York' (Toronto) on Lake Ontario to a landing on the south-eastern end of Georgian Bay bearing the name of Penetanguishene. This was a matter of some seventy miles as the crow flies, but by stream and portage—up the Humber, the long carry across the low ridges, down the Holland, across Lac aux Claies (Simcoe), and finally by the Severn River to 'Penetang'¹—it must have been so devious as to make the longer way round, by Niagara and Detroit to Lake Huron and the Sault, seem the shortest way across this upper-river portion of the original Province of Quebec.

Geographical obstacles, however, can be energetically attacked when a military objective is in view: and so when Upper Canada was partitioned off from the Old Province in 1791 and General John G. Simcoe, who had commanded a Loyalist corps under Cornwallis during the Revolutionary War, came to be its first Governor, with the aid of his soldiers, the 'Queen's Rangers', he built a strategic road, or, more properly speaking, broke trail through forest and swamp for such a road, in direct line the thirty-eight miles from York to Holland Landing near the southern arm of what came to be called Lake Simcoe. This road is now the celebrated Yonge Street, said to be the longest 'street' in

¹ According to Parkman it was the route to Lake Huron and Michilimackinac followed in 1680 by La Salle in his expedition to relieve Henri de Tonty, whom he had left the year before at Fort Crèvecoeur on the Illinois.

the world, though for many years after it was projected it scarcely deserved even the name of trail.¹

But Governor Simcoe wisely devoted himself to other things than the mere military defence of his province. A thorough surveyal and the promise of 100-acre grants to settlers greatly encouraged immigration, particularly on the part of the United Empire Loyalists who had flocked into all parts of Canada after the revolt of the colonies. Concessions were also made in course of time for the British half-pay officers and pensioners, veterans of the Colonial and Napoleonic wars, so that the fertile province began to be settled by a loyal stock, people in many instances of birth and education. They adapted themselves to the life of frontier farmers, whose chief enemy was the forest and whose main outlet for their simple produce was along Yonge Street, the straight road to Toronto, the growing capital of the Province.

These early settlers and concessionaires, being law-abiding and God-fearing people, felt the want of ministers

¹ 'Lieut.-Governor Simcoe's route on foot and in canoes to explore a way which might afford communication for the fur-traders to the Great Portage, without passing Detroit in case that place were given up to the United States. The march was attended with some difficulties, but was quite satisfactory; an excellent harbour at Penetanguishene; returned to York, 1793.' (Note on contemporary map.)

'Monday, Dec. 28, 1795. A party began to cut a road from hence [York] to the Pine Fort at Holland River near Lake Simcoe. Mr. Jones the Surveyor says the Indians killed over 500 deer in a month.' (Mrs. Simcoe's diary.)

It was along this narrow trail behind nine yoke of oxen, with the naval base at Penetang as his destination, that Pierre le Pelletier (Peter Pilky) of Scarboro Township, one time baker to the garrison at York, dragged a two-ton anchor as far as Holland Landing, where it was abandoned in the bush when the belated news finally reached him that the war of 1812-15 was ended.

Along the same trail at the close of the war Lord Selkirk's last expedition, representing the Hudson Bay Company interests, passed on their way to the Georgian Bay, the Sault, and Fort William (the 'Northwest Fur Company's' stronghold), and finally the next year (1817) pushed on to the Red River Settlement.

During the war of 1812, on land purchased from the Indians, a rough forest road had been cut through from Kempenfelt to Penetanguishene. Lake Simcoe remained the connecting link between the two highways until 1827, when 'Yonge Street' and this northern segment were connected by a track through the wilderness to the west of the lake with its northern terminus at Barrie on Kempenfelt Bay.

of the Gospel and accessible places of worship, and as many of them were members of the Anglican Church, urgent calls as time went on were forwarded through the colonial bishops, to the Society for the Propagation of the Gospel in Foreign Parts¹ for young clergymen who were unafraid of the rigours of frontier and wilderness.

There was need of one of these to cover the townships of Tecumseth and West Gwillimbury, half-way between Toronto and 'Penctang', and thus it came about that in the early summer of 1837 Featherstone Lake Osler and his young bride Ellen Free Pickton with all their earthly goods, including a tin box of home-made Cornish gingerbread, found their way north along Yonge Street as far as Holland Landing, and thence the following day, as will be told, to a hamlet or cross-roads subsequently known as Bond Head.²

This young couple who hailed from Cornwall were representatives of very different ethnic types—Anglo-Saxon and Celt. The clergyman, whose readiness for a service spiced with adventure may have resulted from several years of apprenticeship in the Royal Navy, was reserved in temperament, stocky, fair, grey-eyed, and broad-headed. His wife, a native of London, adopted by an uncle in Falmouth, though blessed like her husband with a good mind in a sound body, was, however, of short and slender build, and of so dark a complexion that in later years many who did not know her ancestry assumed that Indian blood flowed in her veins. But these small, olive-complexioned English people, sometimes called 'black Celts', are thought to be remainders of the original Briton driven by successive invasions into the inaccessible parts of Argyllshire, of mountainous Wales, of Western Ireland,

¹ The original Society, founded in 1649 with the Hon. Robert Boyle as its first Governor, had as its avowed object, until the separation of the colonies, 'the propagation of the Gospel in New England and the adjoining parts of America.'

² From the celebrated Sir Francis Bond Head, then Lieutenant-Governor, who quelled the insurrection of 1837. Yonge Street was named after Sir George Yonge, Secretary for War in 1791. Bond Head lay a few miles off the direct overland route to 'Penctang', representing the extension of Yonge Street across the great swamp and through the wilderness of Innisfil to the west of Lake Simcoe.

and of Cornwall and Brittany¹—the regions of Gaelic speech and crosses.

Another tradition, as old as Tacitus, ascribes this brunette type to an Iberian infusion, and it is not inconceivable that the Mediterranean folk who for centuries came for trade, if not for conquest, mayhap left behind them, in exchange for Cornish tin, darker skins, and livelier dispositions quite foreign at least to anything donated to the British character by Angles or Saxons. However this may be, known to her schoolmates as 'Little Pick', old friends in Falmouth spoke of Ellen Pickton as 'a very pretty girl, clever, witty, and lively, with a power of quick repartee, wilful but good-tempered, not easily influenced, very faithful in her friendships, and of strong religious principle'. In these traits as well as in their personal appearance two of her sons, Britton and William, closely resembled her.

The Oslers had lived for long in Cornwall, a race of successful merchants and shipowners for the most part, and the family was strong in traditions of the sea. In a fragment of autobiography left by Featherstone Osler, he says: 'My grandfather Osler died in the West Indies from the effects of a wound. One uncle was killed in action with a French privateer. Another was drowned in Swan Pool near Falmouth, and a cousin a lieutenant in the Royal Navy died of yellow fever in the West Indies.' The 'Grandfather Osler' here mentioned was Edward, who had married Joan Drew, the sister of Samuel the Cornish metaphysician; and it is not unlikely that from this source there came into the Osler line a strain which modified the strongly developed family trait which went to the making of hard-headed men of business and venturesome merchants. This Edward and Joan left six children, only two of whom had issue, Edward the father of Featherstone, progenitor of the Canadian branch of the family, and Benjamin, whose descendants are now scattered in the United States, South Africa, and Australia.²

¹ According to W. Z. Ripley's 'Races of Europe', 1899, a trace of them remains in the fen district of East Anglia.

² The writer has met a member of the Australian branch, whose likeness to Sir William Osler in figure, stature, gesture, feature, and shape of head

This second Edward became a Falmouth merchant, and in 1795 married Mary Paddy, who lived to be ninety-nine, and was herself the daughter of a shipowner. Of their nine children there were three particularly notable sons, all of whom showed outstanding ability coupled with strongly developed religious tendencies. Edward the eldest son, of dark complexion and short stature, after a period at Guy's Hospital became a member of the Royal College of Surgeons, a surgeon in the navy, a Fellow of the Linnean Society, a writer of poems, psalms, and hymns, and a newspaper editor, who despite all this practised medicine long years in Truro, Cornwall. If one may judge from the titles of his three best-known publications,¹ his heart wavered between the navy, the Church, and natural history; and in him as physician, naturalist, and author may be recognized many marks of resemblance, mental and physical, to those possessed by the nephew with whose traits this memoir is primarily concerned.

Featherstone Lake, the third son, has just been left with his bride in Upper Canada, where five years later he is to be joined by his younger brother Henry Bath, Edward's fifth son. For he, also, became a missionary clergyman, who after a residence of thirty-two years in Lloydtown, not far from Bond Head, was transferred to York Mills on Yonge Street north of Toronto. There he continued as rector for another twenty-eight years, until his death in 1902 in his eighty-eighth year.² Thus, for the most part, an enviable longevity has characterized the Osler family.

Probably all Falmouth boys brought up within the sight and smell of the sea come to feel its lure, and so it was with Featherstone Osler, a reckless and daring boy, who

was so striking that he might have passed as a younger brother, though as a matter of fact their common ancestors were this gentleman's great-great-grandfather and grandmother—Edward Osler and Joan Drew. Hence, though Sir William's resemblance to his mother was striking, it is evident that his physical type cannot be laid entirely at her door in view of the close resemblance between such distant cousins.

¹ 'The Life of Admiral Viscount Exmouth'; 'Church and King'; 'Burrowing and Boring Marine Animals', &c. Cf. *Dict. Nat. Biography*.

² He was made Canon of St. Alban's, Toronto; and Rural Dean of York.

when very young had been sent inland to a boarding-school lest he should be drowned. But the appeal was irresistible, and in his teens he was at sea on a schooner, the *Sappho*, bound for the Mediterranean. A dreadful voyage it was, with storms, a near shipwreck and starvation, adrift for weeks on the ocean. Undaunted by this experience he later joined the Royal Navy and went to sea as a cadet. This time his brig-of-war was wrecked in earnest near the Barbadoes, and there followed yellow fever and a pest ship on the way home to face a court-martial, as is the custom when a ship-of-war is lost, from whatever cause. Then to sea again as sub-lieutenant on a 'crack' frigate, the *Tribune*; and four full years of cruising in remote seas ensued, with much of interest and excitement that might be quoted from the journals which, sailor-fashion, he kept during this period. At the end of this long absence, when word came that his father was in poor health and wished to see him before he died, he threw up his prospects in the navy despite a tempting offer from the Admiralty to remain in service, and in 1832 left his ship at Rio and returned to Falmouth. Shelved from the navy by his decision, and having often entertained the thought of taking Holy Orders, after some preliminary studying of Latin and Greek he entered St. Catherine's Hall, Cambridge, in October 1833, and was elected Mathematical Scholar of the college at the first examination. Here, he says, he 'read very hard and looked forward to the prospect of obtaining a high degree and settling down in England in a quiet parish'—with Ellen Pickton as his wife, it may be added, for they had become engaged not long after his return. But this was not to be: it was made clear that his duty lay elsewhere and he could not refuse the call:

It was desired that I should go to Canada early in the spring. Before doing so I had to pass the University Examinations, take my degree, pass the examination for Holy Orders, be ordained, get married and make all necessary preparations for leaving England. This I was enabled to do by the University allowing me to pass my examinations a term before the usual time, though by so doing my name would not appear on the Honour List. The Bishop of London also kindly admitted me to examination two months before the ordinary time, and gave me letters dismissory to the Archbishop



of Canterbury by whom I was ordained in Lambeth Palace early in March 1837.

I had been married early in the previous month, and made arrangements to sail in the barque *Bragila* some time during April, Henry Scadding (then a Divinity student) to be our fellow-passenger. On April 6, 1837, we sailed from Falmouth for Quebec, and after a tedious passage of seven weeks and a half, having narrowly escaped shipwreck on Egg Island, in the Gulf of St. Lawrence, landed in Quebec, and were warmly received by Bishop Mountain . . .

After a stay of eight days in Quebec we proceeded on our journey towards Toronto, and, that we might not lose sight of our luggage, took the route from Montreal and via the Rideau Canal to Kingston, thence by steamer to Toronto. Here we were cordially welcomed by the Archdeacon who informed us that the Rev. H. O'Neil had made all necessary arrangements as to our future residence. We remained four days in Toronto, then resuming our journey northward reached Holland Landing late that same evening, slept there, and the afternoon of the following day arrived at Tecumseth in safety, after driving over roads such as we had never seen before. So bad were they that the driver, with a pair of strong horses, after driving us ten miles to what was then called the Corners (afterwards Bond Head) positively refused to take us the remaining two or three miles, declaring it would kill his horses to do so. Here, after procuring refreshments we got fresh horses and drove to the residence of a farmer named Mairs, where Mr. O'Neil had secured for us the only accommodation to be had in the parish. It consisted of a tiny sitting-room and an apology for a bedroom. Our entire luggage had to be stored in a barn. Poor as was our accommodation, we were thankful to have reached our journey's end.

Bond Head

For the first few months, indeed for the first few years, these young people endured a life of actual hardship. The nearest post-office was at Holland Landing twelve miles away; the nearest doctor fifteen miles away at Newmarket; the nearest blacksmith six miles away, and the roads permitting access to them were much of the time wellnigh impassable. The two townships were sparsely settled, and it was a most difficult matter for the young clergyman to carry out what he regarded as the duties of his pastorate.

The white settlers in Simcoe County at this time were of many sorts, though the Indians possibly still out-

numbered them.¹ Among the 'U. E. Loyalists' there was a body of Quaker settlers from Pennsylvania who had taken up grants on the northern slopes of the Ridges, and around Holland Landing was a smattering of Lord Selkirk's colonists, mostly Sutherlandshire Highlanders, who in canoes had despairingly made their way back from the Red River country, when lawlessness reigned during the struggle between the Great Companies for supremacy in the fur trade.² There were, too, a few French Canadians, but perhaps the majority of the more recent colonists, from 1830 on, were Irish, with a predominance of ardent Orangemen from Ulster, who will be heard of again.

But in a new country a minister, whatever his denomination, is welcome, and in the County of Simcoe—where many of the settlers had not seen a Protestant clergyman for years, their children remaining unbaptized and uninstructed—whenever Featherstone Osler appeared all within reach for miles around attended service; none the less eagerly that the setting must be in some farmer's unchinked log barn. A better place of worship was an outstanding need, and he set to work with his accustomed energy to erect a church before considering what would seem to be still more essential, a dwelling for himself. However, the people were poor, money was scarce, and building materials impossible to get, for as there were no saw-mills near dry lumber was not to be had; and, what is more, 1837, as it may be remembered, was the year of the disorder associated with the abortive rebellion engineered by William L. MacKenzie, the first mayor of Toronto. Nevertheless, somehow a church for each township was finally got under cover, and as they were only seven miles apart, the young clergyman could manage a Sunday sermon in each place, as well as

¹ These were mostly Chippewas (Ojibways). The Hurons whom Champlain found in this country the century before had been exterminated. The counties adjacent to York and Simcoe contained many Iroquois, particularly Mohawks from New York, whose chief, Joseph Brant, under the influence of Sir William Johnson, had sided with the British on the revolt of the colonies.

² Many years later Sir William Osler purchased and sent to the library at Winnipeg some of Lord Selkirk's journals, which he had picked up at a sale in London.

an afternoon service in a stable at Bond Head, which lay half-way between.

Meanwhile, their own living conditions were nearly intolerable, even for two stout-hearted young people, and Ellen Osler years later as a grandmother would tell how her husband was 'away from Tuesday till Friday each week as a general thing, riding on horseback through the woods and swamps, over trails and corduroy roads, the bridges over the wetter parts of the swamps, where there was no footing, being made of floating logs fastened together—this floating road at one place being two miles long and very insecure it was, for the logs dipped and shifted'.

The clergyman himself has left a vivid account of these days, not only in a journal he kept as an aid in preparing his regular reports for his superiors, but in a fragmentary autobiographical sketch¹ which states :

At the expiration of our three months we found we had to leave our quarters, and where to go we knew not. At length a hut was found, in which cattle had been kept. Several women of the parish met together and cleaned it as far as it was possible, and into this we moved for the winter, our clothing, trunks, &c., having to be kept in a barn three-quarters of a mile off. The hut was surrounded by dead trees, and, with the exception of wolves, no living creatures were within a third of a mile from us. Part of the winter my good wife spent at Newmarket where our first son, Featherston, was born, during which time I lived alone, chinking up the holes in the hut with snow and cooking my own food. It was so lonely that no servant would live there.

When the spring opened even this poor accommodation had to be given up, a farmer needing it for his cattle. After much search a log house about twelve feet square with loose boards as flooring was found at West Gwillimbury. A stable three-quarters of a mile from it was secured, and all our luggage, beyond absolute necessities, was stored in a barn three miles distant. The utter discomfort to which we were subjected began to affect our health. The hut in which we were living was on the roadside, far from any house, and we had to depend upon the parishioners to bring us wood for fuel. This they would occasionally forget to do, and we had at times to go to bed in the day to keep ourselves warm.

¹ These journals have been privately printed by his sons—'Records of the Lives of Ellen Free Pickton and Featherstone Lake Osler.' The Oxford University Press, 1919, 4to, 257 pp.

The next spring an acre of ground was given and money subscribed for a parsonage, 'a cottage 30 x 40, the people engaging to erect a stable'. Here on the crest of a low hill by the roadside, a long mile to the north of Bond Head Corners, they finally took up their residence, and ere long Trinity Church was built near by on the lower slope of the hill. So they may be pictured, he at home with his family and local parish from Friday to Tuesday, but away on the other days on horseback and alone, with the baptismal register¹ in his saddle-bag, covering a huge territory to the north as far as Penetanguishene and as far south as Thornhill, establishing congregations and opening Sunday-schools. His ministrations often took him into districts so remote he could only reach them twice a year, and as there were few post-offices he would have to announce the day of the subsequent visit three to six months hence as the case might be, 'and without any other notice the congregation would be waiting at the time specified'.

Ellen Osler, meanwhile, not only had the responsibility of a rapidly accumulating flock of her own, but conducted a famed Sunday-school to which children came from miles around. She also established a celebrated sewing-school, for:

. . . Observing how ignorant the girls were and how untidily they dressed, she proposed to give instruction in cutting out and making their clothes every Tuesday and Friday in the afternoon. Soon a class of twenty-eight girls and young women were gathered together, who instead of coming in the afternoon would come in the morning, remaining the whole day, anxious for instruction. That school did more towards elevating the tone of the people than almost anything else, and to this day many of the women of Tecumseth, now mothers and grandmothers, speak of it as one of the greatest blessings of their lives.

The low one-story parsonage with such a couple in residence naturally became in time the social as well as

¹ This register of marriages, baptisms, and births is still preserved in the parish church, Bond Head, and contains entries of christenings not infrequently as many as fifteen a day. Among them is that of William Osler, and on the same page that of the father of Dr. Banting, the recent discoverer of Insulin. The church contains the white-oak benches from the original building that stood by the Osler parsonage, but of which no trace now remains.

the religious centre of the region. The neighbouring farms, mostly 200-acre grants, began to be taken up by those who became intimates and friends of parents and offspring, for children were born to those early settlers in generous numbers. In the parsonage itself in the course of the first fourteen years all but two of the nine Osler children came into the world. As his father's journal relates, Featherston¹ the eldest was born in Newmarket during the first winter, and the second son, Britton,² known in the family as 'B. B.', the following year in Bond Head.

The year 1841 found the father somewhat broken in health, with a bad cough and an abscess in the back caused by the continuous riding on horseback, necessitating a rest and change. A much-needed vacation with a sojourn in England was therefore taken, and on their return some months later, with their Falmouth-born daughter, Ellen Mary, they found 'upwards of sixty wagon-loads of people' gathered at Holland Landing to escort them the twelve miles to the rectory. In renewed vigour the active life of a frontier parson was again resumed. The church was enlarged with funds donated at home, and the business ability of his merchant forebears began to show itself in his relations to his parishioners in matters temporal as well as spiritual. He taught them farming, and how to make husbandry pay, lent them money, drew up wills for them, dispensed spectacles, and in countless other ways tended to their material and physical as well as spiritual needs.

In a country with an almost unbroken primeval forest, clearing the land for farming is a slow process, and Bond

¹ The Hon. Featherston Osler (*b.* Jan. 4, 1838) entered the law, practising in Toronto (1860-79) until appointed Justice of the Court of Appeal for Ontario (1879-1910). On his retirement from the bench he was chosen President of the Toronto General Trusts Corporation and served in that capacity until his death in 1924 at 86 years of age.

² Britton Bath Osler (*b.* June 19, 1839; *d.* Feb. 5, 1901). Graduating in Toronto in 1862, he entered the law, and as Queen's Counsel and the leading figure at the Canadian bar his name became a household word in Canada, where he was called 'the thirteenth jurymen'. He is said to have been the most brilliant of all the brothers. Physically he bore a close resemblance to his brother William.

Head, largely surrounded by 'stump farms', was still on the edge of the wilderness. The elder children well remember migratory visits of Chippewa Indians to the parsonage, numbers of whom, indeed, were drawn by curiosity to attend the Sunday services; and it is related that one of them, pointing at a child, as dark of complexion as his mother, who lay in a cradle on the parsonage verandah, grunted, 'Papoose, papoose', which aroused a fear that some day they might run away with him. In 1842, the year after their return from England, the third son, Edward Lake, was born, and three years later Edmund.¹ In 1847 came twins, Charlotte (the 'Chattie' of subsequent letters) and Francis, who had a roving disposition, and like his father went off to sea in his early years. The son William was born as stated on July 12, 1849, and two years later a daughter Emma, who died in her third year. Walter Farquhar rather than William was to have been this last son's name, presumably in honour of the patron of the Upper Canada Clergy Society, but pressure of an unexpected sort was brought to bear on this subject.

Bond Head was by this time a growing village of some two hundred souls, and boasted not only of a doctor, Orlando Orr, who officiated at the births of the younger Osler children, but of a school-house, a blacksmith-shop, a tavern, and a lodge. For some years it had been the custom of the Orangemen of the district to gather here for their annual fête-day on July 12th; and adorned with sashes, rosettes, and yellow lilies it was part of their programme to march, to the tune of 'Teeter Tawter Holy Water', behind their cockaded leader on his white horse, from the Corners the mile or so to Mr. Osler's parsonage, where speeches were made and felicitations offered in return. In view of this well-established custom, it was

¹ Sir Edmund Boyd Osler, *b.* Nov. 20, 1845; *d.* Aug. 4, 1924, inherited through his father the business ability for which his ancestors were renowned. As a financier he had been for years an important figure in Canadian affairs, being the head of one of the most important brokerage houses in Canada, President of the Dominion Bank, Director of the Canadian Pacific Railway and many other companies; he was a member of the Canadian House of Commons for many years. In physical type he closely resembled his father. Edward Lake also became a barrister, and practised in the North West.

inevitable that on their annual visit in 1849 they should insist that the newcomer, of whose arrival they were made aware by his being brought out in his father's arms, should be 'William'. He was promptly dubbed the 'young Prince of Orange', and an anti-popish acrostic on his name was composed, in the last line of which he is bade to 'Remember all thy Fathers bled to gain'. Hence William he came to be christened, and decked out in appropriate colours with a broad sash of orange and blue he was brought out on the parsonage verandah on his later birthdays to greet the procession which the other children came to regard as arranged solely in his honour.

Without any written record, the early life may be pictured of these eight children, the youngest of whom was often referred to by his mother as 'Benjamin', and by his father in babyhood, owing to his complexion and black eyes, as 'Little burnt-holes-in-a-blanket'. The earliest recollection of this particular boy, as he used to recount years later, was of being nearly drowned the day his younger sister was born, though as he was only two at the time it may have been a figment of his imagination. Both he and a calf had been tethered in the field adjoining the parsonage. There was a pail of milk near by, which on hands and knees he proceeded to investigate. At a critical moment of unbalance he was toppled head first into the pail by the calf, who shared his interest in the contents. Another story he was wont to tell in after years was of his once meeting a bear in a raspberry patch, but this, too, may have been apocryphal.

It was an old-fashioned household in which regulations were strict and promptitude was expected, beginning with early morning prayers and ending at bed-time. The most difficult problem concerned the children's education. At first a log school-house near by, where one of the neighbouring family of Gavillers taught the rudiments of the 'three R's', was all that the vicinity afforded. Then a Mrs. Hill started a school near Bradford some miles away, which the elder boys attended, and finally a school was opened in Bond Head by a Mr. Marling, to which in due course the children trudged. But between the hours dedicated to

school and the many chores of farm and household there was abundant time for such play as healthy youngsters enjoy in the open, unhampered by organized sports—coasting and skating and snowballing in the winter, fishing and swimming in the pond by the saw-mill at the foot of the hill, frolicking with Rover the Newfoundland dog, who was trained to go to Bond Head for the mail; playing Indians in what remained of the great forest of hardwood—white oak and maple, basswood, elm and beech, with spruce and pine and beautiful red cedar which was split and used for the miles of snake fences.

In spite of their hours passed on Mr. Marling's benches, doubtless most of the instruction of these children took place at their mother's knee, and with the Bible as the main source of it. Theological books naturally predominated in the parsonage, for Featherstone Osler, in the absence of a provincial school of divinity, prepared a number of young men, his brother included, for their ordination. There was Hooker's 'Ecclesiastical Polity', Butler's 'Analogy', Bishop Burnet's 'Lives', Bishop Taylor's and Isaac Barrow's works, the Parker Society publications (Reformation), Bunyan's works, 1771, with the terrifying illustrations to the 'Pilgrim's Progress'. There were indeed, as one of the sons recalls, 'solid and indestructible blocks of divinity of all kinds'. The writings of his brother Edward Osler, the naturalist-doctor, were also well represented, as told in this pencilled note found among Sir William's papers some seventy years later:

As a boy in a backwoods settlement in Upper Canada, the English post would bring letters from an Uncle Edward for whom we cherished an amazing veneration; for on the shelves in Father's little study were there not actually books written by him, and poems, and mysterious big articles with drawings about shells, and now and again did we not sing in church one of his hymns? The reputation of the family seemed to circle about this uncle whose letters were always so welcome and so full of news of the old home and so cheery. We boys could read the difference in our father's face when the post brought a letter from Uncle Sam, the black sheep of the family.

Then there was, of course, Locke on the Understanding, Josephus's 'History of the Jews', Hone's 'Everyday Book'

with its fine wood-cuts; and other volumes whose backs and titles were familiar to children of the 1850's. A Macaulay, too, is remembered, and a 1721 Addison; 'Sandford and Merton'; 'The Fairchild Family'; an early copy of Tennyson; and an occasional pious novel like Hannah More's 'Cœlebs in Search of a Wife' was probably sent out from England in the missionary boxes by 'the S.P.G.' or by friends in Cornwall. There came also stray copies of Sharp's *London Magazine of Entertainment and Instruction*, the forerunner of *Cornhill*, and perhaps there may have been odd numbers of 'Sketches by Boz', for one of the children remembers his father 'roaring over Pickwick', though this must have been exceptional, for he is described by another of them as 'a reticent sort of a man, English to the backbone, who seldom let himself go'.

Then there was George Borrow, who as a missionary of Cornish ancestry could not have written hurtful books; so 'The Bible in Spain' and even 'Lavengro' were not taboo even on Sunday. Still, as Osler confessed long after, though Sunday reading was remembered as a trial, yet to see a person with a novel on the Sabbath gave him to the end of his life a reflex shock reminiscent of his early training. Copies of the *Illustrated London News* are also remembered, partly for its pictures of the Crimean War, but largely because this remote episode put up the price of Canadian wheat to \$2.00 a bushel. In consequence of this and owing to the fact that the farm manager inconsiderately died in the summer of 1855, Edmund and Britton under their father's direction had to run the partly cleared 100-acre farm, get in the harvest, store the hay and dispose of the turnips, potatoes, and wheat. One of them to-day, sixty-nine years later, recalls vividly the feeling of the straw scratching his bare legs, and the delight of a swim in the pond two or three times a day.

On farms in the vicinity there were many families of gentlefolk: the Williamsses, the Gavillers, the Tyrwhitts, the Perrums, the Caswells, and others, who became intimates, and there were assuredly many picnics and parties for the children. Mr. Perrum, their nearest neighbour, used to dabble in chemistry and physics, and another avocation was

the new art of amateur photography. To this, posterity is indebted for a chance picture of some of these children dressed in their homespun, with a restless child, William, at the end of the line. A few years later another incident occurred at a picnic in the Gavillers' woods. The children were gathering firewood, and Willie, armed with a hatchet, was engaged in chopping the faggots into lengths on a stump. His sister 'Chattie' to tease him would put her small hand on the stump, and finally he said he would count three, and if she didn't take it off she would lose a finger. She lost it, fortunately only a tip, and brother Willie disappeared to the hay-loft—from which he was extracted some hours later—to escape the punishment to which he was entitled, on the appeal of his still devoted sister and playmate.

The elders, strict as they may have been with their children, were not given to corporal punishment, and this boy in particular, impulsive and full of mischief as he continually was, was so forgiving and affectionate that he probably escaped many a deserved wiggling. His elder brother Frank relates that the onus for many of his own escapades was apt to be voluntarily shouldered by Willie, and that the younger brother once deservedly gave him a black eye for some offence, but subsequently shielded him before their parents and took the blame himself for the quarrel. In a family of children essentially unselfish and generous with their small possessions, Willie even as a boy was quick to give the last penny of his scant pocket-money to another who might be hard up.

In an address given in Glasgow fifty years later,¹ Sir William drew upon his early memories of these days for this following comparison :

The most vivid recollections of my boyhood in Canada cluster about the happy spring days when we went off to the bush to make maple sugar—the bright sunny days, the delicious cold nights, the camp-fires, the log cabins, and the fascinating work tapping the trees, putting in the birch-bark spouts, arranging the troughs, and then going from tree to tree, collecting in pails the clear sweet sap.

¹ 'Pathological Institute of a General Hospital,' *Glasgow Medical Journal*, Nov. 1911, p. 15.

One memory stands out above all others, the astonishment that so little sugar was left after boiling down so great a cauldron of liquid. And yet the sap was so abundant and so sweet. The workers of my generation in the bush of science have collected a vaster quantity of sap than ever before known; much has already been boiled down, and it is for you of the younger generation while completing the job to tap your own trees.

In the years since 1837 great changes had taken place in Tecumseth and its adjoining townships, as well as elsewhere in Upper Canada, but the region about Lake Simcoe, nevertheless, was lacking in much that was desirable for the upbringing of a large family of children. Hence in September of 1854 Featherstone Osler felt impelled to write Bishop Strachan of Toronto to request that he be transferred, partly on the basis of indifferent health, which was affected by the necessity of constant travel, but more particularly on the grounds of his children's education. The elder boys had already been sent away to school in Barrie, and were preparing to enter college, but there were six younger children in need of more than Bond Head offered and the purse of a frontier parson could afford.

Two years later the rectorship of Ancaster and Dundas became vacant, and the Bishop on January 1, 1857, ordered his transfer to those parishes. But a transplantation is no easy thing, and they found it a hard wrench to leave Bond Head, despite its shortcomings, as is evident from this passage in Canon Osler's diary:

It was one of the hardest trials of my life to leave the place where I had lived happily nineteen and a half years, and the people with whom I had lived without a jar or discord during the whole period, but I felt that the Church would not suffer by my leaving it. In the neighbouring townships many churches had been built, and in Tecumseth and West Gwillimbury, my specially licensed charge, where there had been neither church, parsonage, nor glebe, there were now six churches, two parsonages, and two glebes; the one in Tecumseth being especially valuable, consisting of 200 acres. I had 160 acres cleared.

So it came about that the Bond Head farm was sold and the family was moved to a more self-contained community where conditions of life were far less primitive and arduous. For Dundas at the time, situated most picturesquely at the

very western tip of Lake Ontario, half-way between Toronto and Niagara, promised, owing to its favourable position, to become the metropolis of the new province.

Two of the boys had already gone to a boarding-school in Dundas, and fortune favoured the transfer of the remaining family in a curious way, for having journeyed safely by the recently opened Northern Railway from Bradford to Toronto and having made arrangements to go from there by rail the following day to Dundas, the boy Willie, as is related, came down unexpectedly with the croup, and the second stage of the journey was deferred. The train they were to have taken on the Great Western Railway became derailed as it was approaching Hamilton, and the coaches plunged through the viaduct into the canal forty feet below, with great loss of life—the Desjardin catastrophe of March 12, 1857.

Dundas

Here in the prosperous and fertile river-valley at the head of the lake there began an entirely new life. With Dundas in the centre of his parish, with good roads making travel comparatively easy, with accessible schools for the children, and cultivated people as neighbours, Canon Osler spent his next twenty-five years. A temporary residence in the centre of the town situated in the valley was soon given up and a permanent move of the rectory was made to the southern heights overlooking the valley towards its still higher northern escarpment called the Mountain—a panorama of rare beauty. There are indeed few more picturesque spots on the Great Lakes, and in a comfortable home in these charming surroundings with an intimate group of ideal neighbours and friends the years passed happily by for parents and children.

There was an Episcopal boarding-school for girls in Dundas at the time, and one of the pupils, then fourteen, vividly recalls even at this day Canon Osler and his wife, to whom the tradition still clung that she was of Indian ancestry :

I can see the little Episcopal Church with the sunshine filtering through the coloured windows. One of our teachers was organist,



FEATHERSTONE LAKE OSLER

Taken circa 1870 in Dundas



ELLEN FRER PICKTON OSLER

Taken circa 1870 in Dundas

two others sang in the choir and we were all required to attend services, Lenten too, and often Matins, and early Communion—we were really part of the church. The Rector as I remember him was a good-looking, rather short 'roly-poly' man with blue eyes, bushy whiskers and heavy eyebrows, intoning the service and rows and rows of girls repeating at intervals, 'Lord, have mercy upon us, and incline our hearts to keep this law.' He was a fine character, though quite unlike his brilliant sons, but we all loved him though we called him in private 'Sneezer' (this is of course *entre nous*). Then those Saturday, Easter, and Christmas parties! The romantic tales we wove around Mrs. Osler! Of course in our minds she was directly descended from Pocahontas, and a beautiful chief wanted to marry her but her father chose the Englishman! How disappointed we would have been had we known the truth.

There was every prospect that Dundas, then a town of some 3,000 souls, possessing a daily newspaper! and seven churches!! was destined to become the chief city at the western end of the lake. The great highway, Governor's Road or Dundas Street, passed through it to the west; it had a splendid water power, and the Desjardin Canal, cut through the marshes for a distance of five miles, connected it with the ideal land-locked harbour made by Burlington Bay. All this bid fair at the time to ensure its future growth and prosperity. One of the most attractive features of the lower valley was the huge marsh, long called 'Coote's Paradise', after an early sportsman of Governor Simcoe's time, who spent much of his leisure in shooting game there; and in the course of years, as will be seen, this same marsh became the hunting-ground for zoological specimens by a young naturalist and his preceptor.

The younger boys, promptly dubbed by their new play-mates 'Tecumseth cabbages', in view of their rural place of origin, were sent to the local grammar-school, conducted first by a classical scholar, a Mr. John King of Trinity College, Dublin, who had come out to Canada in 1854, and subsequently by another Irishman, a Mr. J. J. Flynn, as principal. This grammar-school occupied quarters upstairs in a building which also housed a common-school on the ground floor, a situation almost certain to lead to trouble, particularly as the head master of the common-school was a despot who disliked boys as a class, but

particularly grammar-school boys. Doubtless Mr. Flynn himself was the victim of many pranks on the part of his own irrepressible pupils, than whom there was probably none more notorious than a rollicking boy named Willic Osler, who though adored by all was particularly ingenious in evolving and perpetrating practical jokes of an elaborate and unusual sort, in which as a rule he took the leadership.

Which one of many escapades led to his final dismissal makes little difference—whether it was the flock of geese found one morning locked in the room of the common-school, or the discovery on a Monday morning of a school without furniture, the desks and benches all having been unscrewed from the floor and laboriously hoisted up through a trap-door into the garret the Saturday afternoon before; or whether it was some disparaging remarks concerning the head master of the common-school shouted through a keyhole.¹ At all events, expelled he was, with his four accomplices.

His sister recalls meeting him on the way home that eventful day. He was riding bareback on the Canon's horse, picked up at the shop of his friend and confidant, Pat O'Connor the blacksmith, on whom he had called to impart the news; waving his hand he shouted, gleefully, 'Chattie, I've got the sack!'

¹ An account of the episode with the altercation which followed it may be found in the local news-sheet, *The Banner*, June 2, 1864, et seq.

CHAPTER II

1864-7

BOARDING-SCHOOL DAYS

Barrie

THUS Willie Osler came to be sent away the next autumn to a boarding-school, and following the footsteps of his brothers was entered in the grammar-school at Barrie, a town on the western arm of Lake Simcoe, half-way between his old home at Bond Head and Penetanguishene. The Rev. W. F. Checkley, a famous schoolmaster of the day and a friend of the boys' father, was principal, and under him many sons of the early settlers in Upper Canada spent their first year away from home, though by this particular time the school's reputation had somewhat waned and its numbers dwindled. Of the mischievous boy who had come from Dundas there is little but hearsay record, for the school no longer exists, and the old brick building after many vicissitudes has been demolished. One may gather from his mother's weekly chronicle of home news that his wants were few, and it is hoped that he secured some slippery 'elem' in Barrie, and that brother Frank, who had been rusticated, got his skates by Christmas:

From his mother to W. O.

Dundas. October [1864].

My dear Willie,—I can excuse you if you begin to think of yourself in a small degree slighted, for I ought to have written last week but could not manage it and we were for some days expecting a letter from you before it came. I am sorry to find you had such a bad cold but hope it will not wind up with another attack of Intermittent; we too all of us have or have had colds indeed who has not during this changeable weather. Charlotte has written you all the news of the day and the Pater told you how well the Ancastrians did at their Bazaar—\$400 was more than any of us expected to make. . . . I bought a winter necktie for you which I will try to enclose in this letter but both Papa and I think it will be useless to send up a box, as apples are scarcely to be had and Frank's expedition for nuts the other day was only productive of *one quart* so if Papa sends you up a dollar it must do instead and I dare say you could get a tooth brush and a packet of slippery Elm (not Elem)

bark at Barrie nor can we find your 'Horace' in the study to send up. I am glad your clothes suit. Frank went down by Boat last week to Toronto and got a suit of clothes at Walkers and Felt hat; they make him look quite the young man; nothing yet has turned up for him to do, but all are looking out for him. . . . Papa is going to take this down town to get a dollar note and a stamp to enclose, if we can find the 'Horace' we will send it up by post next week. Give my kind regards to Mrs. Checkley and love to Mrs. Stewart when you see her and with my best love to you hoping that you are on terms of love and friendship with your books I am ever

Your affectionate Mother

ELLEN OSLER.

Frank left his skates at Barrie. Mind you take care of them to bring home at Christmas.

The school was divided into day-pupils and boarders, the latter living with Mr. Checkley, who does not seem to have left any deep and lasting impression, upon one of them at least. But no matter how slack his observance of regulations, a boy who is affectionate, chivalrous, and generous, who has no difficulties with scholarship and at the same time excels in sports—such a boy becomes a leader wherever he may be put to school, and makes fast friends. Indeed, one of Osler's outstanding characteristics was his tenacity for friendships, which once made were never forgotten, and with his particular friends of this early school period he kept up a running correspondence during his subsequent migratory life and even till his last days, never failing to send messages of greeting on holidays and birthdays, nor to hold out a helping hand when they or their families were in trouble or want.

The mere transfer from one institution to another does not suffice to subdue the effervescent spirits of a fun-loving boy, and there were three youngsters among the fourteen or more in the school who earned the appellation of 'Barrie's Bad Boys'—Ned Milburn, Charlie Locke, and Willie Osler—and the last-mentioned, in his later years, used to recount with glee to his special children-friends the pranks of these Barrie days. One of them writes :

Sir William used to tell me stories of his boyhood as I sat on the floor at his knees by the library fire, but I am afraid they were all either lacking in details of time or place. . . . I was in the garden with



THE FORMER PARSONAGE AT BOND HEAD

Circa 1875



THE OLD BARRIE GRAMMAR SCHOOL

Circa 1870

him one day and dared him to throw a stone and hit something that was a long way off, and he hit it *true* with the first stone, and told me that on his way to school one day with three other small boys Ned Milburn dared him to hit a pig with a stone. The pig was a long way off, but with the first stone he hit it directly behind the ear and to his chagrin killed it instantly. He would always laugh till the tears came into his eyes at the thought of how 'that old pig looked as he rolled over on his back with his four legs stiff in the air,' and of how the farmer came out and took him by the scruff of his neck straight home; and his father had to pay eight dollars for the pig. . . . During those last sad years I never saw him laugh so heartily or look so happy as when he forgot the present and lived again his old pranks.

Mr. Milburn, who of these three boys alone survives, writes as follows of those days, passing over in a few words, as taken for granted, that owing to his remarkably retentive memory and exceptional powers of concentration, 'Osler easily ranked first in the whole school'; also, that even when at Barrie he was notably proficient 'in that greatest of books, the Bible'.

. . . The spirit of fun was well marked in him—real fun that hurt nobody but sometimes caused a little annoyance to the victims of the joke. The fact is we were often blamed for the misdoings of ill-conditioned boys belonging to the town, even though we could prove a perfectly good alibi. At times a zeal for study would seize us, especially when exams were imminent, and as our study-hours ended at 9.30 at which time all lamps were taken away, we would jump out of our dormitory window some six feet above the ground and study our Xenophon, Virgil or Caesar by the light of the full moon, then we would go down to the Bay distant a little over 100 yards and disport ourselves an hour or two in the cool water. . . .

Not far from the school was a large cottage, the residence of Sheriff Smith, with a fine garden in which the gardener took great pride. In it was a fine melon-patch. We determined to have a melon, so taking advantage of the absence of the household we secured each a melon, but just as we came to the road, up came the gardener. As the Sheriff insisted on our punishment the result was we were gated for a week and had to write out the text of Virgil, Bk. I. O. said little, but watching his chance he got on the roof and put a board over the chimney—soon the excitement began. The Barrie Hook and Ladder Co. with what we called 'Cataract No. 1' came tearing along—only to find no fire—only smoke. This was our reprisal, so to speak. . . .

One of the last tricks, indeed the last, I think, that we played,

was on an American who had advertised for a wife. In our Toronto papers O. noticed the advertisement and suggested the following plan—to answer the advertisement describing ourselves as a brunette and a blonde respectively—so that he could make choice according to his fancy. We had some trouble in fitting ourselves out with girls' clothes, but with my sister's help we developed into pretty fair specimens of the genus girl.

In due time the farmer arrived at the Grand Trunk Station where we had agreed to meet him, for the station we knew was badly lighted, which would be of advantage to us. All went well—we resisted his request for another meeting by daylight and asked him to make his choice then and there. He did so, and as he rather liked blondes his choice fell on me. I wonder at it, for O. made a beautiful girl with his clear-cut features and olive complexion. We never knew what became of the farmer—he left us, promising to return in a month, as this would give him time to fix up his house. I hope he got a blonde.

As mentioned above, Osler possessed a remarkably supple body which enabled him to excel in all youthful sports; and the elastic swinging step of a boy characterized him to his last days. He at one time won a school prize for kicking the football, and after leaving school and when in college played in matches with the Hamilton cricket team during his summer vacations. Mr. Milburn continues:

We were all very fond of athletics and were big boys for our age. . . . Nothing could tire us. We were all bone with steel bands for muscles. On one occasion we three essayed to swim across Kempenfelt Bay, there (at Barrie) I fancy about a mile-and-a-half wide. Accompanied by a boat we started on the trip. I managed to cover about a mile when my fingers began to cramp and I climbed into the boat. O. and Locke kept on and accomplished the feat, a very difficult one due to the many cold springs in the Bay. He was also good at cricket. On one occasion I saw him throw a cricket-ball 115 yards, a throw never beaten I think, at least by an amateur.

Weston

The reputation of the Barrie school being at this time on the wane, this, together with its distance from Dundas, must have influenced the boy's parents in favour of a change. A circular had been received by them describing a new school recently opened at Weston, a town on the Humber, a few miles west of Toronto, and a paragraph in the circular stated that senior boys would go into the

drawing-room in the evening and be taught music, dancing, and painting. If this was the lure, it seems to have been a vain one, for in the capacity to learn such arts William Osler was by nature deficient; but to the school he was sent, and here something not advertised, but far more important than these parlour accomplishments, was found—namely, a real master, 'who knew nature and how to get boys interested in it'.

The Rev. William Arthur Johnson was born in 1816, in Bombay. His father, then Quartermaster-General to the Bombay forces, was an engineer officer, who not only had a distinguished military career in India but had served earlier as aide-de-camp to Arthur Wellesley (first Duke of Wellington) from whom this his second son received the name Arthur. On retiring with the rank of Colonel he returned to England and lived at Down House, where later Darwin lived and died; and he became a friend of Turner and of Landseer, and was 'no mean artist himself'.

The son William Arthur for whom Wellington had stood as godfather had been sent to the military school at Addiscombe,¹ and it is said was later offered a commission by the Duke. But, disliking the army, he abandoned that career and with the Jukes family migrated to Upper Canada in 1831, where his father soon followed him, to take up one of the land grants for retired officers near Port Maitland. Johnson subsequently entered the Church, and became curate under Archdeacon Bethune (subsequently Bishop of Toronto) then at Cobourg. From the first he was apparently influenced by the Oxford Tractarians, and had he been in England instead of Canada in 1851, the year he was ordained, he might have joined forces with Newman. Some of his 'low church' parishioners both at Cobourg and at his subsequent parish of St. Paul's, Yorkville, made trouble for him on these grounds. Bishop Strachan exonerated but did not support him, and he was finally inducted as the rector at St. Philip's, Etobicoke, a remote hamlet across the river from Weston.

¹ His elder brother had been there before him; had gone into the army; seen service in Arabia; been advanced to Captain, and was drowned at Surat in his twenty-seventh year.

In this parish he became much beloved, though he remained to the end more or less of a thorn in the flesh to his bishop on account of his ritualistic proclivities, which he defended both in pulpit and press. Having a family of three boys of his own to educate and there being no distinctly church school in Toronto at the time, he determined to start one himself. Accordingly, at his own expense and on his own responsibility, a school known as 'Weston' was opened in a small building on the west bank of the Humber, overlooking the ruins of an old mill, traces of which still stand in the lowlands of the picturesque river valley.

The project thrived, and in 1864 Johnson proposed to the governing body of Trinity University that the school come under their supervision, that it be called the Trinity College School, and serve to prepare boys for Trinity University. For himself he proposed that as a master, he should teach French, drawing, and water-colour painting, without remuneration, and, what is more, would make himself responsible for the expenses of the establishment, provided he might use the name of Trinity College in the circular of announcement, to which reference has just been made.

There were many pourparlers, and it may be assumed that Bishop Strachan had some misgivings regarding the unruly priest he had been disposed to discipline. However, the corporation on the 8th November 1864 sanctioned the arrangement, and the school formally opened the next May with about a dozen boys, a greater number than had been expected or could well be cared for. As there was no room for them available in the village, the pupils, soon twenty-five in number, were somehow accommodated in the parsonage, the half-basement of which was fitted out with rude desks, a large upper room being converted into a dormitory. In this school Willic Osler was entered on January 18, 1866. 'I can see him now', writes one of his mates, 'soon after he arrived at the rectory—with a red pocket-handkerchief round his neck and a sling in his hand taking a survey of any chance birds in the garden.' This occupation must have been more to his liking than practising scales indoors, for his mother writes at the expiration

of a few weeks: 'Papa I dare say will be at Weston next week and then will give you the V for the quarters music if it is still your mind to learn.' But it was not to be through his advertised courses that Johnson came to mould and influence the thoughts and subsequent career of his young pupil, in whose attitude towards life a great change took place in the short space of the next eighteen months. But years are longer at seventeen than later in life, and fortunate the schoolboy who at this impressionable age makes contact with such a guide, philosopher, and friend as the Rev. W. A. Johnson proved to be. It was an association never forgotten, and to his indebtedness the pupil in after years made repeated reference in his writings and addresses.

'Father' Johnson,¹ though the founder and Warden of the school, and its real influence among the boys, was not the Head Master. This position, filled by the Corporation of Trinity, was occupied by a tall, austere young man with 'long black whiskers and a very decided mouth', a classical scholar and recent graduate of Trinity College who had learned during a subsequent sojourn in England, it is said, how a good Church School should be conducted on the long-established traditions of the great English Public Schools. Being a martinet and addicted to the birch, believing that the way to reach a boy was through his hide, the Head Master was as unpopular as the Warden was otherwise. He lived in rooms built off the parsonage, and from them could see the windows of the schoolroom in the half-basement, which put the boys to the great disadvantage of never knowing when his eye was on them. The consequences of any misbehaviour has been so vividly recalled in an article written by one of the boys² that one feels he may have had experience with 'caning which was one of the strong points of the school':

The canes, too, were peculiar. They were made of beautifully polished, round strips of what was known as second-growth Walpole

¹ The appellation 'Father' Johnson, as his friends loved to address him, was one which in those days a Protestant might have regarded as a term of reproach—a reproach in which Johnson, however, would have gloried.

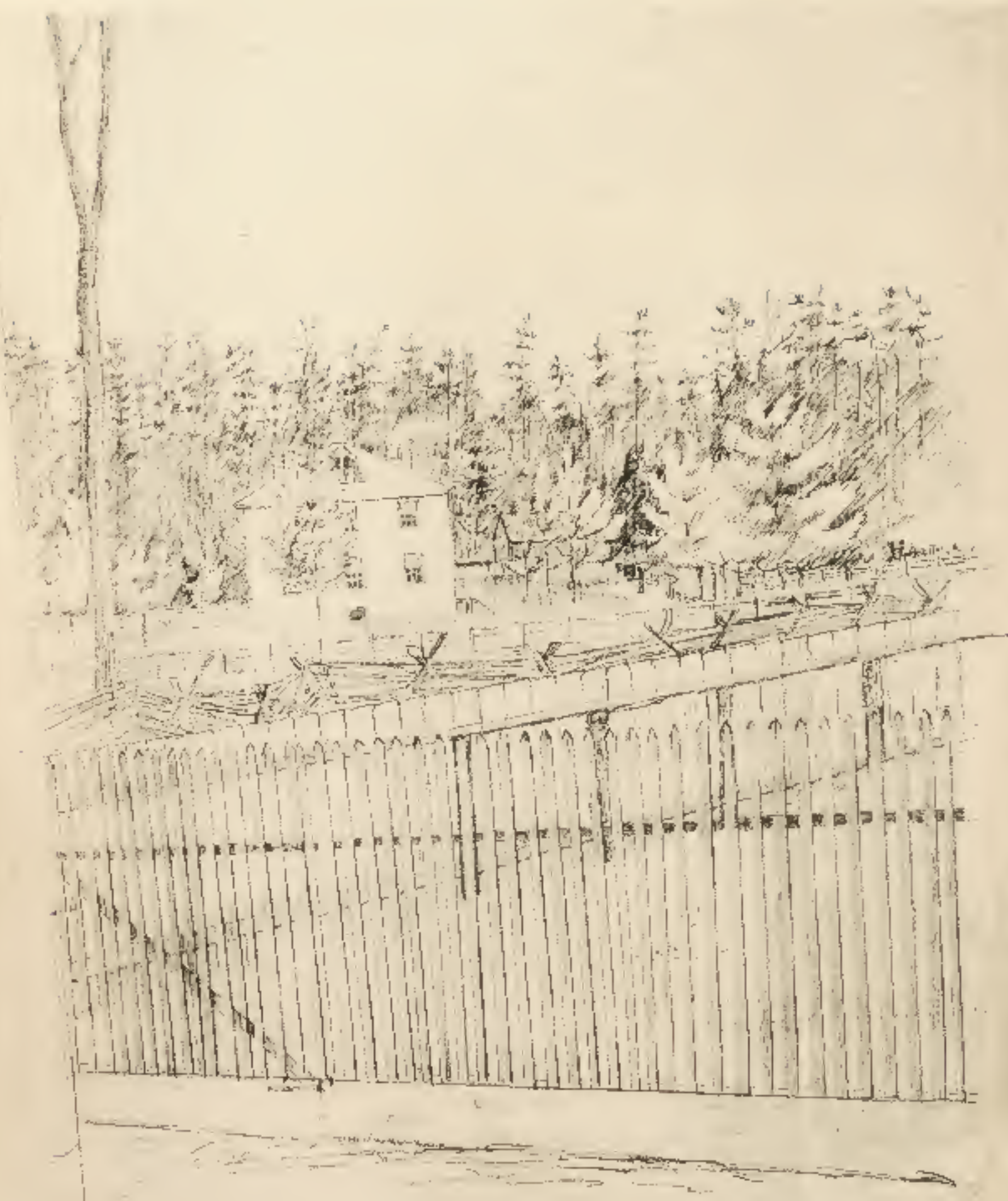
² Arthur Jukes Johnson. *Trinity College School Record*, 1915, p. 57.

hickory. They were practically unbreakable, and would bend like a bit of India rubber, warranted to be felt over every spot they touched. There was a decided advantage to the culprit in his being sent for the cane: in the first place it gave the master, supposing that he had been somewhat ruffled, time to get thorough command of himself, and it also gave the boy an opportunity of preparing for the ordeal. Having to go through a long passage outside the house before he reached the Head Master's room, opportunities might occur to his mind of so arranging matters that the caning was not so hard to bear. . . .

With the object, it may be, of escaping from such tyranny Osler and one of his mates early in his Weston career contrived an ingenious and effective method of enjoying a sojourn at home, by deliberately exposing themselves to a boy who was in quarantine with chicken-pox—a fact now made public for the first time, as the one surviving member of the conspiracy no longer feels bound by their oath of secrecy.

The school gradually increased its numbers until it was no longer possible even for an elastic parsonage to encompass it all. Hence a new building had been secured some little distance away, for classrooms and dormitory, where the Head Master reigned supreme. He had engaged a housekeeper, an old woman, and her buxom daughter, both of whom came to be heartily disliked, and thereby hangs a tale, for to be disliked in a boys' school is to invite molestation. The story can be found in the county court records of the *Toronto Globe* for April 8-13, 1866, under the caption, '*School Row at Weston. Pupils Turned Outlaws. They Fumigate the Matron with Sulphur.*' A mild rendering of the episode has been printed elsewhere¹ by the Warden's eldest son, one of the culprits, but a somewhat more lively version comes from the little girl to whom stories of his boyhood used to be told by Sir William before the library fire in Oxford. In this rendering the assault was in revenge for a specified offence, the despised female the day before having upset a pail of slops on the stairs, which soured one of the boys. Hence, on the day in question, the coast being clear and at Osler's instigation, they barricaded 'the old girl' in her sitting-room and made a paste of molasses,

¹ *Trinity College School Record*, Jubilee Number, 1915, xvii, 63.



THE WESTON SCHOOL IN THE EARLY DAYS.

From a sketch by W. A. Johnston

mustard, and pepper, which they put on the schoolroom stove, so that the fumes rose to her room through the stovepipe hole. The prisoner stuffed the hole with some clothes, which the boys pushed back with pointers. Being resourceful and to avoid suffocation, she sat on the register and screamed for help, while the boys poked at her from below as they had done to the clothes. Ultimately she was rescued by the Head Master, and the boys, as can be imagined, duly experienced the effects of the Walpole hickory strips. But this did not satisfy the Matron, who demanded their arrest for assault and battery. Unable to get a warrant issued in Weston, she finally secured one in Toronto, so that the nine boys, including the Warden's two sons, passed a few days in the Toronto jail, and were defended by the young Osler's elder brother, Featherston, before the magistrate in the county council-chamber, with the result of a reprimand and payment of a dollar and costs. At all events, they had effectually 'smoked the old girl out', for she refused to stay longer at the school. 'It was an unfortunate affair', wrote his mother on April 19th, 'that of all you boys being brought into public notice in such a disreputable manner, and although I do not think it was meant to be more than a mere schoolboy prank, such things often tell against a person long after, and I hear many say they think it will injure the reputation of the school.' With which mild reprimand his 'ever loving Mother' ended by enclosing two dollars and a postage stamp.

It was a humble setting at Weston, a square, two-storied, plastered house which served as parsonage as well as school, in which Johnson, his wife, and three children lived, together with as many boys as could be crowded in; and their names to-day can be seen scratched with some one's diamond on the low windows. In addition to the Warden's family was the Head Master, and he in turn had an assistant, and a Mr. Sefton came out for the week-ends and gave music lessons. There was also a Mr. Carter, who, when not engaged in the classics, taught cricket and football; and a 'Captain' Goodwin, an old Waterloo veteran and great favourite with the boys, not only drilled them

every Saturday afternoon, but taught them the manly art of self-defence with fist and cudgel. There was a playground near by, and also the Warden's private chapel, while the woods on one side and the little town on the other stretched along the bluff overlooking the river valley. In this setting the effort was being made by the Head Master to reproduce on a small scale something of Eton, Harrow, or Rugby, by transplanting to new soil the traditions of these and similar foundations as little modified as possible, to make them fit in with or to neutralize the democratic ideas which were beginning to take hold of the country. Though 'fagging' had not been introduced, the school discipline was maintained by the 'prefect' system, whereby the boys were placed on their honour and practically governed themselves under the supervision of four prefects chosen from their own number. The prefects, of whom Osler was soon made head, held their positions as long as they could retain the boys' confidence, and there were ways of superseding a prefect if he showed himself unworthy of his position. They exercised large authority in the school, and dealt with all such petty incidents as squabbling, Billingsgate exchanges, bullying, and so on—occurrences which may make the life of an unprotected small boy in a school utterly wretched. As one of Osler's mates recalls :

The process was simple. A sharp voice would ring out : ' Stop that, you muckers.' If *that* wasn't stopped—' Well, we must settle this business at once.' If the lads were evenly matched, well and good ; if not, the heavyweight must submit to some handicap, or the lightweight might call upon his particular pal and the thing would be fought out—' Queensberry rules—shake hands—now to it.' The prefect would see fair play and when in his opinion enough punishment had been given the fray must cease, the warriors shake hands and as a rule be fast friends—for a time at least. Sometimes two rooms of boys would have to settle their difference in this way, but the general engagements of this kind were frowned upon by the Head Master.

The boys were garbed in a sort of Eton attire, and were expected to appear in public wearing top-hats. This must have been particularly tantalizing for the town boys of this small country village ; and to wear a top-hat certainly puts one at a great disadvantage in a snowball battle. Christian



THE FOUR PREFECTS AT WESTON
WILSON, OSLER, JONES AND HELLIWELL

Toronto, 1867

names, of course, were ignored and nicknames discouraged. Jones was 'Jones' in classroom, on cricket-field, or at roll-call, and this last was a duty which devolved upon the prefect, who had to recite from memory the list of names at fixed hours, even during play-time, to ascertain whether any boy was out of bounds without leave of absence. As one of the surviving prefects of Osler's day recalls, this was easy enough if there was only one Jones, but otherwise the senior Jones would be 'Jones max.'; and after fifty-five years he recalls like an old tune the roster of his time: 'Anderson max., Anderson major, Anderson minor, Beck, Boulton, etc., etc.'

But as a man is more important than his workshop, so the Warden was more important than his school, and it is to him that this story must return. For the Rev. W. A. Johnson's conception of education did not lie in the greatest number of facts which could be drilled into his boys, but in the ideas which centrifugally would radiate from them under varied stimuli not necessarily confined to the schoolroom. He must have been the despair of his Head Master. He was an artist, among other things, and sketched well; he was a wood-carver, and the products of his chisel, some of which still adorn the parish church at Weston, can perhaps be best seen on the carved altar table of St. Matthew's, Toronto. He was a nature-lover, not in the casual sense of admiring her beauties from afar, but in the sense of the scientist who thinks nature even more beautiful and thrilling if seen close at hand under the microscope. With all this he was an ardent high-churchman, given to genuflections, to prayer and meditation in his private chapel adjoining the school,¹ and was such a punctilious observer of high-church ritual that it kept him in more or less hot water. The head prefect of these Weston days, nearly fifty years later in an address² dealing with science in the public schools, expressed himself as follows:

As a boy I had the common experience of fifty years ago—teachers whose sole object was to spoonfeed classes, not with the classics but

¹ This chapel (St. John's), removed from its former site beside the old rectory, now stands encased in brick on the north side of Main Street, Weston.

² *The School World*, London, 1916, pp. 41-4.

with syntax and prosody, forcing our empty wits, as Milton says, to compose 'Theams, Verses and Orations', wrung from poor striplings like blood from the nose, with the result that we loathed Xenophon and his ten thousand, Homer was an abomination, while Livy and Cicero were names and tasks. Ten years with really able Trinity College, Dublin, and Oxford teachers left me with no more real knowledge of Greek and Latin than of Chinese, and without the free use of the languages as keys to great literatures. Imagine the delight of a boy of an inquisitive nature to meet a man who cared nothing about words, but who knew about things—who knew the stars in their courses and could tell us their names, who delighted in the woods in springtime, and told us about the frog-spawn and the caddis worms, and who read us in the evenings Gilbert White and Kingsley's 'Glaucus', who showed us with the microscope the marvels in a drop of dirty pond water, and who on Saturday excursions up the river could talk of the Trilobites and the Orthoceratites and explain the formation of the earth's crust. No more dry husks for me after such a diet, and early in my college life I kicked over the traces and exchanged the classics with 'divvers' as represented by Pearson, Browne and Hooker, for Hunter, Lyell and Huxley. From the study of nature to the study of man was an easy step. My experience was that of thousands, yet, as I remember, we were athirst for good literature. What a delight it would have been to have had Chapman's 'Odyssey' read to us, or Plato's 'Phaedo' on a Sunday evening, or the 'Vera Historia'. What a tragedy to climb Parnassus in a fog! How I have cursed the memory of Protagoras since finding that he introduced grammar into the curriculum, and forged the fetters which chained generations of schoolboys in the cold formalism of words. How different now that Montaigne and Milton and Locke and Petty have come into their own, and are recognized as men of sense in the matter of training youth.

So the interests of these days come to a focus in W. A. Johnson and his microscope in so far as they relate to a boy who was expected to follow his father's footsteps and enter the ministry. Two months after entering the school he had been prepared by the Warden for confirmation at St. Philip's; and that he had strong leanings towards the Church is apparent from one of his mother's letters written towards the end of the spring term:

From his mother to W. A.

Dundas, May 30th, 1866.

My dear Willie,— . . . Papa had your letter a day or two ago and will probably write to you soon and as well to Mr. Badgely about

your remaining another year at school. And now my dear boy let me have a little serious chat with you about entering the Church which you say you have made up your mind to do. My first impulse was to thank God that he had heard my prayer and inclined one of my six boys to make choice of that as his path in life. It is a matter not to be decided on hastily any more than is any other profession—take your time for consideration and above all search your heart for the motives inducing your decision, for remember that God always judges of us by our motives while man can only judge of our actions. . . . I send you a *volume of good advice* which was given many years ago by a good man to his son at Shrewsbury School it is good for boys in all ages and at all schools *read it carefully and follow it fully* and in the *Book of Proverbs* which the wisest of fathers wrote for the benefit of his son and which is meant for you as well as for him you will find far better advice than I can give. May God incline your heart to love and serve Him through His beloved Son is the prayer of your loving Mother,

ELLEN OSLER.

[PS.] I see your name flourishing in the Games of Monday, it was a bad day, nevertheless I hope you all enjoyed the fun.

[PPS.] My dear Willie,—I must just scribble another line to tell you how proud we all were to see 'Osler 1st' so many times in the paper to-day and I was so sorry to see the rain yesterday, but it does not seem to have made much difference; we hope to have a long account of the day's proceedings from you soon; the notice in the Leader was very short. You will have a long letter from me as soon as I can find time for such a proceeding. Bye-bye.

His name indeed 'flourished', for according to the *Toronto Leader* he came out number one in the majority of the athletic contests which had been staged for the preceding Monday—the hurdle race, the 200- and 400-yard flat races; the 100-yard hop race, the mile steeplechase, and throwing the cricket ball, though there seems, from the following recollection of one of his schoolmates, some doubt about its having been a record throw:

Physically Osler was rather undersized but extremely wiry and well proportioned, a fine all-round athlete, without being a champion in any particular line. I believe though, he did break the record for throwing the cricket ball at one of our term-end sports. Unfortunately, however, the Campus (if we may use a word I don't like, which our college athletes have to-day taken over from the Yankee vocabulary) proved too restricted for his prowess, and the ball hit the high fence near the top. Such a throw was never dreamed of. But Professor Jones, of Trinity, possibly not an unprejudiced

referee, came to the rescue, and by the aid of most compelling mathematical calculations—no doubt they were absolutely accurate as became the dictum of an exact science—demonstrated to our entire satisfaction that if the wretched fence had not been in the way the ball would have hit the sod at a distance that neither Rugby nor Eton had ever achieved. Anyhow, it is not on record that our English schools yielded their claim to the championship on the strength of Professor Jones's verdict.

But the excursions on week-ends in the beautiful valley through which the Humber flows, and the expeditions to more distant places during vacation time in company with the nineteenth-century edition of the Sage of Selborne, who had a like taste for observing and for recording natural phenomena, served to deflect him from his drift towards the Church. One of his boyhood companions, the Rev. Arthur Jarvis of Toronto, in some reminiscences of their school-days at Weston, says :

It was our greatest treat when 'Old Johnson' could be led to take a squad out for a field day, hunting fossils, and he did not need much persuasion. I can still see the Warden wielding an old prospector's pick, and Osler the most eager boy of the lot to secure a perfect orthoceratite or whatever Lower Silurian relic the soft stone about Weston might yield. Some of us were keen to retrieve a few good sections of orthoceras to be diligently polished and converted into prodigious sleeve-links at 'Kent's store' in Yonge Street.

Osler, however, was the scientist of the expedition. To him was entrusted the delicate work of grinding down and mounting specimens for microscope slides. Sometimes he might graciously, after the manner of Tom Sawyer, delegate some of this protracted mechanical grinding on the Water-of-Ayre stone to our less skilled hands—it wasn't every day that a boy had a chance to help in the construction of valuable scientific exhibits! Nevertheless experts pronounced them exceptionally fine—after Osler had put the finishing touches.

W. A. Johnson was an omnivorous naturalist, ranging widely with no attempt at specialization. Everything interested him, the structure of the hair of different animals from the caribou to the flying squirrel, the structure and growth of wood, the study of fossils and minerals, the finer anatomy of moths and butterflies and insects of every kind, some of which he unblushingly transferred from his own person or bed to the stage of the microscope; seeds

and shells, ferns and mosses, bones and teeth of vertebrates from those of a thirty-pound 'Masquenonge', caught by his son-in-law, to the molar of an old cow killed on the railway track. He was an amateur, it is true, and dabbled in many fields, but the flame nevertheless burned brightly, and he knew how to transmit it to others. His field notebook with the tabulation of his microscopic slides all carefully enumerated and indexed, tells the story better than words, and it is a pity that it cannot be quoted in full, particularly during the year when the young Osler begins to appear on its pages. He took the *Microscopical Journal*, and consulted other books of reference, as can be seen by some of these illustrative entries :

§ 493. 16/i/67. *Aspidiotus conchiformis*, or 'oyster shell bark louse'. For a description of this little destructive thing see Harris pg. 254 & Practical Entomologist at pg. 31 of Vol. ii, where there is a good drawing & description.

§ 733. 12/xii/67. Fossil wood. On the 8th Nov./67, Mr. W. Grubb gave me a roughly ground seal wh. he said was fossil wood, an oak? tree from Craighigh Quarry nr. Edinburgh, Scotland, at about 100 ft. below the surface : he got the bit of stone himself. See pg. 40, and pg. 375, Lyell's Elementary Geology, 6th edition, 1837.

§ 749. 7/i/68. Larva (aquatic) *Palpicornes Hydrophilus*, with curious head, tripartite shovel on head. Taken in July, 67, in W. Holley's pond on G. T. Railway Weston. See Animal Kingdom, by I. R. Jones, p. 125.

§ 1430. 15/ii/71. Leg bone of a Crane, Heron or Heron shot Sept. 28, 1867. Note these two are ground on glass with pumic[e] stone wetted and put up with Balsam. See Qual'y Journal microscopical science.

§ 1488. 15/i/73. Insects in a book—In the first page of Carpenter's Comparative Physiology. This intensely cold weather seems a strange time for them to be about. Unknown to me at this date, except by sight. This stellate form, wh is often so plentiful in watery collections, is from the seeds of the Mullein collected about Oct. 1st.

Accordingly, though Johnson's library of five or six hundred volumes was chiefly ecclesiastical, the boys in the parsonage had access to Lyell and Dana, to Gray, Harris, Hogg, and Carpenter, which in the hands of the Warden probably interested them more than did the *Principia*

Latina, Arnold, Anthon, and Todhunter in the hands of the Head Master, whose tasks consisted largely in the committing to memory of countless lines of Homer and Virgil, read with the aid of Schrevelius' lexicon and Ross's grammar, in which the definitions were in Greek and Latin respectively. How Osler's powers of concentration, that stood him in such good stead in later years, came to be so highly developed is indicated by this recollection of one of his schoolmates :

Imagine a room full of IV-Form *enfants terribles* at 'prep.' where the prefect's ideal of discipline was to limit noisy demonstration so that the sound waves shall in no wise break upon the ear of the Head Master. Then maybe a few moments of intense application to the work of the hour, a little surreptitious scribbling of imposition lines, a generous exchange of tips as to the translation of a 'rotten' line, or the solution of a 'beastly rider'. Such serious toil produced a demand for relaxation, taking the form of practical jokes played by the shirkers upon those, especially, making some effort at a semblance of study. In the pandemonium Osler might be seen grasping his head, with thumbs in his ears, oblivious to everything but his book ; till perhaps a paper dart, with or without inked point, roused him to a consciousness of outward things. Retaliation followed as a matter of course, but the *deaf adder* pose would be resumed so soon as circumstances might permit. After one or two such experiences the *pose* was likely to be treated with due respect.

The much-dreaded Head Master established a rule that roll-call would be held every two hours on holidays, but nevertheless the boys on these days would take to the woods for bird-nesting or hunting chipmunks, and one of them recalls the chance discovery in the late autumn of a nest of hibernating chipmunks which were slipped into his shirt and carried to chapel, whereupon they revived and raced around his anatomy. This must have kept him awake, but doubtless took his attention from the lesson.

Among some of the early entries in Johnson's field notebook there is found a name which will frequently recur in this story :

- 1859. Vine : transverse section, given me by Dr. Bovell.
- 1864. Part of scale of dog-fish, given me by Dr. Bovell.
- 1865. Fossil chalk from Barbadoes, given me by Dr. Bovell.

And in the summer of 1866, when he seems to have become

engrossed in mosses, there is this: '§ 384. 18/6/66. Leaf of moss (Dr. Bovell took it)'—and it is probable from what is known of him that he forgot to return it; but these entries will suffice to introduce another character whose influence upon Osler came in time to be even greater than that of 'Father' Johnson himself. One of the Warden's sons writes:

. . . One thing I remember vividly—Old Bovell and my father were (as usual, on days Bovell spent at the rectory) working at the microscope case which had many tempting little drawers in it and I (boylike) opened one of these drawers and seeing a small bone took it out—when Old Bovell said in his fash, impetuous yet loving manner: 'Don't take that—that is one of the bones of Nebuchadnezzar's *Cat* and you *must* not have it.' It made an everlasting impression on my boyish mind. That probably occurred on one of those days when Osler and myself were rewarded by being allowed in my father's study for bringing home a good haul of frogs—used by Bovell and my father for studying the circulation of blood in the frog's foot.

Doubtless drawn together by their mutual interests in natural science, as biology was called in the days before Huxley, Dr. James Bovell and the Rev. W. A. Johnson had been acquainted for several years, and when the school at Weston was projected and became accepted as the Trinity College School under the authority of the Bishop, Bovell was appointed its medical director. Though in practice in Toronto and a teacher in the medical college, it was his habit to spend a part of each week-end in Weston, quite forgetful of his patients in all likelihood, absorbed with Johnson in collecting, staining, and mounting specimens for microscopical study. In this pursuit he must first have encountered the dark-eyed enthusiastic head prefect who used to accompany the Warden on his collecting expeditions.

Though a high-spirited boy and the ringleader in many escapades, Osler is said by his contemporaries to have been so straightforward, manly, and clean—'unobtrusively good without sanctimonious pretence'—that he exerted a splendid influence on the morale of the school. Moreover, at the end of the spring term as head of his class he had received the Chancellor's Prize, and it is not to be

wondered at that Johnson had set his heart on having him, as well as another of the prefects—'Jones max.' of the roll-call—return for an extra year, although both had passed the subjects necessary for college. Osler had returned to Dundas for the summer, and apparently it was during this vacation, possibly as a by-play in connexion with the excitement caused by the Fenian Raid, that he is supposed to have drilled a company of youngsters for military service. He may have volunteered for this task under the influence of 'Captain' Goodwin's tutelage; and Dundas, it may be recalled, was not far distant from Fort Erie, which in June 1866 had been captured by O'Neil's band. However this may be, of another episode of the summer there exists written record. For there were a number of attractive cousins, both Canadian and English, who were visiting at the parsonage, and with each of them, as is the way with seventeen, he probably fell successively in love. This at least is to be gathered from letters of warning against entanglements, which he received from his elder sister after his return to school.

Meanwhile, during this summer vacation of 1866, 'Father' Johnson returns to his collecting, and the entries begin with '*June 20. Diatomes, desmids and congregating algae put up in glycerine, water & spirit and fastened immediately.*' Although he turns aside to examine the stomachs of the katydid and dragonfly, and to investigate butterfly eggs, the spores of rust, and much else besides, by the time school reopened the Diatomaceae, Algac, and Polyzoa seem to have become the dominant interest.¹ In this new subject, as would appear, the head prefect on the reopening of school was quickly fired in turn, and the valley of the Humber on many a half-holiday afternoon doubtless saw the two together in quest of specimens, in the collection of which the younger was the more persistent, as time will show.

The home letters of the period (unfortunately none of his own have been preserved) indicate that there are cricket

¹ 'A History of the British Fresh-water Algae.' By A. H. Hassall, London, 1857, is still among Johnson's books, and probably was the source of this new interest.

matches, visits from the cousins, and a 'Grand Shine', regarding which his mother writes a breathless sentence on October 29th :

I do not know whether I can send you the wished for Dimes because Papa is not home and I have no notes in the house, however, if he comes in time I will enclose it as I suppose you want it before the grand day of Games. And now what will you say when I tell you that *Marianne, Jennette, Ellen Mary and Charlotte* are to be with you on that day—and if you can escape from the Games to meet them at the Station they will be glad to see you there, they are (if all be well) to *leave here by the morning train*, lunch at the Toronto Station, and on to Weston, and *if they should get an invitation to remain the evening at the Grand Shine* they would sleep at the Hotel at Weston, returning to Toronto next morning, if not they will return to Toronto and mean to stay there till Saturday or perhaps Monday, if it is possible I would like you to write directly you get this, so that we might get it by Wednesday evening, telling us if the Games are really to come off and at what time, in fact tell us all about it and if it will be possible for the girls to put up comfortably in case they stay the night, they anticipate quite a pleasure trip and are anxious to see their cousin Willie. I think you'll like them, we all do.

It was this autumn that in a rugby football scrimmage he injured his shin so badly that he was laid up for some weeks with what evidently was a severe osteomyelitis. Affectionate and unbosoming letters which have been preserved were received from many of his old schoolmates—from Ned Milburn, one of the 'Barrie Bad Boys', who was already in his first year at Trinity, and from 'Jemmy' Morgan, another intimate of the Barrie days, who being a few years his senior, was at this time teaching school in Oakville, half-way between Toronto and Dundas. 'Father' Johnson rigged up for his damaged leg 'a common kind of rest, such as is used in England largely by men who suffer from the gout—a thing you could put your foot on and it changes its position with your position in the chair'. During these weeks of enforced inactivity he sat much of the time in the Warden's study where the microscopical specimens were prepared, and it is probable that the man and boy had long talks together, and that the boy's interest in the microscope and what it might reveal was further aroused at this time. It is probable, too, that being his

patient he came more intimately at this time in contact with Bovell during the latter's week-end visits at the school.

But troubles meanwhile were brewing for 'Father' Johnson. The daily control of the school was naturally in the hands of the Head Master, but a number of the boys still lived with the Warden at the rectory, and so came under the Head Master's eye during school hours only. This division of authority was an inevitable source of friction, for it is quite probable that some of the school regulations were disregarded by the Warden, and as time went on relations became strained. It was a case of incompatibility of temperaments. One can easily appreciate the lack of sympathy or understanding on the part of a classicist for a clergyman who was in a position to engage the attention of his pupils in such occupations as grinding bones and teeth, the structure of which seems to have aroused Johnson's enthusiasm early in 1867.¹ The first entry in his specimen-book which mentions the name of his favourite pupil was on January 22nd, and on the same day the relic of 'Nebuchadnezzar's Cat' seems to have been mounted for study :

- § 505. 22/i/67. Crocodile scale ground by Osler, ground through (dry).
- § 506. 22/i/67. Longitudinal sections of bone of a cat, brought from the Pyramids of Giza (dry). Supposed to be 4000 years old. The bone was given me by Dr. Bovell.
- § 511. 28/i/67. Tooth of Bear, transverse, this had lain a long time in an Indian mound near Lambton, C.W. Turpentine and Balsam.
- § 524. 29/i/67. Transverse section, half of palatal tooth of fish. Given me by Dr. Bovell. Extremely hard. In the sac.
- § 530. 7/ii/67. Dentine & enamel of beaver incisor tooth, dry.
- § 540. 11/ii/67. Longitudinal section, leg bone of wild swan

¹ Presumably Johnson's interest in bones and teeth must have been awakened either by the 'Odontography' (1840-5) of Sir Richard Owen, or his 'Anatomy and Physiology of the Vertebrates' which had just appeared, though it is doubtful if he could have afforded to possess such expensive volumes; but his note-book shows that he had access to the *Quarterly Journal of Microscopical Science*, London, the official organ of the Royal Microscopical Society of which Owen was the first President and of which William Osler subsequently became a Fellow. Very probably they knew also of the *Micrographic Dictionary* of Griffith and Henfrey, 2 vols., 2nd ed., 1860.

having a small portion of the hard part of the cuticle. Dry. The bone is more brittle, & the haversians are more regular than in the Goose.

§ 550. 12/ii/67. Trans^e section, Human Fibula. This bone must have lain many years in the ground; it was taken from an Indian burying mound at Woodbridge, C.W. Put up in inspissated Balsam (changed to Balsam, *pure*).

§ 566. 28/ii/67. Transverse section leg bone of a cat, very thin, dry. Cat was killed on the railway track during the winter. Very pretty. Ground & finished by Jimmy.

The 'Jimmy' of these notes was the Rector's second son, James Bovell's namesake, who living in the parsonage far from the Head Master's reach could be called upon to grind bones and teeth for his father at irregular hours without fear of a birching. His elder brother Jukes had already gone up to Trinity College for a course preliminary to medicine, where appeals from Osler apparently reached him for bones of a variety Weston did not afford. During these winter months of 1867 a goodly number of teeth, it may be assumed, were also being ground in the irascible Head Master's room, though they did not come to be listed among W. A. Johnson's specimens. Far from it, for the unsuspecting Warden ere long had his school taken away from him by the machinations of others and transferred elsewhere; but this is perhaps another story.¹ By spring the head prefect's much discussed lame leg had so far recovered that it no longer kept him from his favourite expeditions, nor from engaging in cricket matches, to judge from this letter to his cousin:

To Miss Jennette Osler from W. O.

[no date]

... I have splendid times with Mr. Johnson out after specimens of all sorts. I wish you had been with us last Tuesday down at the Peat Swamp, there are such splendid flowers down there and the Moss is so nice and springy one would like to make a bed of it. We got the smallest and rarest variety of Ladies Slipper or Indian Moccasin plant. I would so like you to see them they are the most beautiful of all Canadian wild flowers there are none about Dundas

¹ The school was finally removed from the auspices of its founder and established at Port Hope. Johnson was encouraged by his many supporters to organize another school at Weston, and this he attempted, with the Rev. Mr. Checkley, formerly of Barric, as Head Master. The venture was unsuccessful and was abandoned after a year or two.

not being the right sort of soil for them to grow in. And if you could only see the Algae, that green stuff that you see on ponds and stagnant water, it is so beautiful, the thousands upon thousands of small animals all alive and kicking that are in it. We get some dirty looking brown stuff that at this time covers all the stones of the river and we found that on every pins point there were one hundred of the small creatures, fancy what there would be on a square inch and on a square mile. But I suppose you will think this sort of thing rather dry so I will stop it and turn to something perhaps nicer. We are having such a splendid run of Cricket Matches this term. We played Toronto yesterday and gave them such a thrashing, you will see it in Mondays Leader. Frank played with the Toronto fellows. Jemmy Morgan came out with them to see us all. We play Trinity on Thursday but I am afraid we will be badly beaten as they have the best Club in Toronto, but we have such a jolly player here, a regular old Englishman called Mr. Carter, he has been out here for about ten years roughing it in the backwoods; he is at present our third Master . . . Believe me ever your affec cousin,

WILLIE.

So though working hard for a scholarship, sports and natural history had their due share of his time, and in conjunction with 'Father' Johnson he began during May and June to tabulate and study his collection of the Diatomaceae which ere long constituted the basis of his first scientific publications. In furtherance of this quest, after the close of school the Warden paid a visit to Dundas, where he and his disciple frequented the Desjardin marshes and the adjacent waterways in search of specimens, the number of which increased by leaps and bounds. They may be pictured setting out on their daily expeditions with their nets and old-fashioned tin candle-boxes as specimen-containers slung over their shoulders; and ere long their attention was drawn to a still more engrossing topic—the fresh-water polyzoa. In a paper on this subject, which was put together ten years later,¹ Osler drew upon his note-books for the following description, which manifests the flame of a youthful naturalist:

. . . The specimens on the table show well the hyaline gelatinous nature of the *cænacium* and the arrangement of the Polyps upon the surface. This is perhaps the most abundant fresh-water Polyzoon in the country, being found in the quiet waters about the mouths

¹ Cf. p. 151.

of the numerous streams, and in the small lakes. It is not very abundant in Quebec, but it has been found near St. Andrews, and I obtained a beautiful specimen from Lake Memphremagog. I have not seen it in the neighbourhood of Montreal. This species prefers quiet, still waters, not too much exposed, nor of large extent and subject to commotion from waves. Thus I have never found it in Lake Ontario itself, but always in little sheltered marshy bays, where it is found encrusting long, upright sticks, and the stems of rushes. My attention was early directed to this form as it exists in extraordinary profusion in the Desjardin Canal, which leads from Burlington Bay to my native town of Dundas. The wooden sides of the canal basin in the months of July and August are almost uniformly covered with this magnificent species. The growth begins about $1\frac{1}{2}$ to 2 feet below the surface and extends in depth for the same distance or even further, rarely, however, deeper than six feet. The masses form extensive sheets usually a few inches in thickness, or else beautiful symmetrical projections, 6-12 inches in thickness, which spring either from a bed of the Polyps or are isolated. In the summer of 1867, during a visit of my friend, the Rev. W. A. Johnson of Weston, I showed him the masses and we agreed to submit them to examination with the microscope, not having any idea as to their real nature. Judge of our delight when we found the whole surface of the jelly was composed of a collection of tiny animals of surpassing beauty, each of which thrust out to our view in the zoophyte through a crescent-shaped crown of tentacles. Recognizing it as a Polyp we were greatly exercised as to its position, presenting as it did in the method of growth such variation from the ordinary species described in our zoological text-books. Happily in the *American Naturalist* for that year we met with Mr. Alpheus Hyatt's papers on the Fresh-water Polyzoa, then in course of publication, and obtained full information therefrom . . . In some seasons the luxuriousness of the growth of these creatures is extraordinary. In the still, quiet water in the marsh on either side of Desjardin Canal, just before it passes through the Burlington heights, I have met with masses which would not go into a pail. The largest I have ever seen lay at the bottom in about nine feet of water. I could hardly believe it was a mass of Polyps, but to satisfy my curiosity I stripped and went in for it. With the greatest difficulty I brought it up in my arms, but could not get it out of the water for the weight, which must have been close upon 25 lb. It resembled in form one of those beautiful masses known as brain coral . . .

The end of July found master and pupil once more together in Weston, where doubtless collecting, 'in spite of his poor leg', was again so ardently resumed that letters home appear to have been somewhat slighted, if one may

judge from his mother's gentle hints. During their rambles he and 'Father' Johnson must have talked freely about his future, and it was decided apparently that he should go up to Trinity College, with the expectation of entering the ministry. Another of the school prefects, L. K. Jones, had made a similar choice of career, and they determined to go to Oakville together and read up for the matriculation examinations. The remainder of the summer, therefore, was passed at the house of the Rev. Mr. Fletcher on the lake shore at Oakville, where they enjoyed the companionship of 'Jemmy' Morgan, who recalls that after lessons they would all sit up till midnight watching under a microscope, borrowed from Dr. Bovell, the activities of fresh-water algae.

Meanwhile in this year of 1867 the Canadian Confederation came into being, and ere long Ontario and Quebec came, in the people's minds, to take the place of Upper and Lower Canada, and a sense of national life began for the first time to be felt even in the smallest of communities in the Dominion.

CHAPTER III

1867-70

TRINITY COLLEGE AND THE TORONTO MEDICAL SCHOOL.

OSLER WENT up to Trinity in the autumn of 1867, having in his possession one of the Dixon Prize Scholarships which he had well earned at Weston. Moreover, he apparently had theology still in the back of his mind. Trinity College,¹ it may suffice to say, was naturally enough regarded as a nursery for the divinity faculty and most of the teachers in the Arts course were clergymen, from among whom, as has been seen, the visiting board for the school of Weston were chosen. But not a few of these clergymen, like their more famous prototypes Stephen Hales, Gilbert White, and Joseph Priestley, were inclined to dabble in science and, no less than W. A. Johnson, felt a consuming interest in the phenomena of nature. One of them indeed, the Rev. John Ambrey, Professor of Classics, was the donor of a school prize for the best collection of geological and entomological specimens. Ministers with an interest in the natural sciences, particularly in those days when Wilberforce and Huxley represented the antipodes of thought and men's minds were greatly unsettled over original sin and Darwinism and Man's Place in Nature, made dangerous teachers for youths whom they expected to induct into the Church. To them science was a pastime; but the

¹ The all-influential Bishop Strachan, acting upon an old Royal Charter, had established a Church College—King's—in 1842, to which a medical department was attached. The Provincial Legislature in 1849 repealed the earlier charter and designated the institution The University of Toronto. A firm believer in the union of Church and State, with the Church in control of education, Strachan had long been the uncompromising centre of the fierce battles which had raged over the university question and the clergy reserves. Undaunted by the action of the legislature, he secured in 1850 another Royal Charter for a Church of England University, which became the University of Trinity College. The situation had its counterpart in London, for King's College was founded as an offset to the non-sectarian University College where, as the Established Church claimed, no moral or religious care was exercised over the students.

pleasant avocation of one generation easily becomes the vocation of the next, and his introduction to zoology must already have done much to deflect the impressionable mind of Osler from the very calling his revered preceptor expected him to follow. It is quite certain, however, that the boy's mind was not fully made up until a year later, and it is probable that his decision in favour of science became fixed through the unconscious influence of James Bovell, who himself, curiously enough, was in the process of changing in the reverse direction from Medicine to the Church. If Johnson's influence over the schoolboy had been considerable, that of Bovell was to become far more so, and to be more enduring.

James Bovell was born in the Barbadoes in 1817, where his father, an English banker, had long been resident. Possessed of ample means, he went to England in 1834, and after a short stay at Cambridge determined to study medicine, entering Guy's Hospital, where he became one of Astley Cooper's dressers and enjoyed the friendship of Bright and Addison. His London University degree could not be granted as he was two years under age, and to pass the time he repaired to Edinburgh to study pathology under Dr. Craigie and subsequently took his first doctor's degree in Glasgow. The next few years were passed in Dublin under Stokes and Graves, who were at the height of their fame. While there he was stricken with typhus, and on his recovery instead of acting on the advice of Stokes, who predicted a brilliant career for him in Great Britain, he returned home to take up practice at Antigua, whence in 1848 he was one of many who migrated from the West Indies to Canada. He settled in Toronto, and two years later with Dr. Hodder helped to organize a medical department for Trinity College—the Upper Canada School of Medicine.¹ In this school, which for the times was an excellent one, requiring an arts degree for entrance, Bovell acted both as Dean and as Professor of

¹ The history of the medical schools of Upper Canada is a long and complicated one, with a succession of institutions which flourished, languished, and died. The story up to 1850 is told in Wm. Canniff's 'The Medical Profession in Upper Canada, 1783-1850'.

the Institutes of Medicine: but the school had a short life, and though Bovell subsequently joined the 'Toronto Medical School Faculty, he retained the Chair of Natural Theology in Trinity, where until 1875 he lectured on physiology and pathology.¹ His particular and favourite course was on the subject of 'physiology as related to theological conceptions'!

With his four daughters Bovell lived on Spadina Avenue, and the young Osler soon after his entrance to Trinity began to frequent the place 'to keep the aquaria stocked with pond material likely to contain good specimens of algae'; and also to gather and study a variety of animals which shortly overflowed to 112 St. Patrick Street after one of the daughters married a Mr. Barwick and moved there to live. Besides this, what engaged him as a first-year student at the university, if it was other than what engages most young men, is not recorded, though it is evident that he repaired to Weston as often as week-ends and vacations permitted, in order to go over with Johnson the accessions to his zoological collection.

A few classroom note-books of the period have been preserved. One of them starts out bravely, under the date 21/10/67, with '*Latin Prose Composition*', and after the first exercise there is written in the teacher's hand, 'Very good indeed my boy.' But after November the exercises cease to be copied out and the remainder of the book is filled with notes regarding his fresh-water polyzoa: '*Genus I Epithemia*: adherent, quadrilateral; valves circinate furnished with transverse canaliculi, &c., &c.' and there follows a list of elaborately described specimens taken from Humber Bay, Grenadier Pond, the Thames, London [Ontario of course], Desjardin Canal, Burlington Bay, Sandy Cove, together with other genera and species from the same and other places; from the sunken boat in the mouth of the Humber often mentioned in W. A. Johnson's note-book; *Cyclotella Kützingeriana* of which there are myriads in the river at London; from the Northern Railway wharf where *Navicula tumida* are common; from the Don River,

¹ Cf. Arthur Jakes Johnson on 'The Founder of the Medical Faculty', *Trinity University Review*, Jubilee No., June-July 1902, p. 104.

Cedar Swamp, Weston ; and finally from Buckley's water-trough, Dundas, which evidently found him at home for Christmas.

It was Johnson's custom to read aloud to the boys in the parsonage, and for this purpose, as Osler recalled in later years, he often selected extracts from such works as the 'Religio Medici' 'in illustration of the beauty of the English language'. But it must have been more than this. That a high-churchman should have cared particularly for Sir Thomas Browne is remarkable enough, but that he should have been able to transmit this appreciation to a boy of seventeen is truly amazing. It moreover is an important thread which from this point weaves its way through Osler's story to the end ; and the 1862 edition of the 'Religio', his second book purchase,¹ to which he referred more than once in his published addresses, was the very volume which lay on his coffin fifty-two years later. In Osler's library alongside this particular book, handsomely rebound and evidently much read despite the few marks it contains, there always stood another volume in its original covers entitled 'Varia: Readings from Rare Books', by J. Hain Friswell, London, 1866, which is inscribed in his eldest brother's hand: 'Wm Osler from F. O. Xmas 1867.' One of the best of the charming essays this volume contains is upon Sir Thomas Browne, and one may imagine a young man destined for the ministry reading during his Christmas holidays about 'The Religion of a Physician', and how few people there are who know its author, mistaking him either for the facetious writer of 'Laconics' or the Tom Brown of Mr. Hughes's imagination ; how he came to practise in Norwich and to write his books ; how 'Sir Thomas grew pleasantly old, and died as we have seen, boldly and manfully when his time came' ; how he came to be buried there in St. Peter Mancroft in 1682 ; how in 1840 his grave was despoiled

¹ Osler has given the date of this purchase as 1867, but there are reasons to believe that this was a slip of memory. The first book he bought was the Globe Shakespeare which he said was afterwards stolen, and he often invoked 'the curses of Bishop Ernulphus on the son of Belial who took it.' His favourite copy of the 'Religio' was probably purchased in 1868.

and his skull, rescued from private hands, came to adorn the museum of surgery in Norwich, rendering prophetic certain passages in his 'Urn Burial'.

It must have been shortly after this Christmas vacation that the 1862 Ticknor and Fields (second) edition of the Completed Works, dedicated to the authors of 'The Autocrat of the Breakfast Table' and of 'Rab and his Friends', was purchased at W. C. Chitwell's bookstore in Toronto. There is written, at least, on the fly-leaf 'W. Osler. Coll. S.S. Trin. Lent Term 28/2/68'. In the book itself there are but three marked passages.¹ Few marks were needed, for only one other book, the Bible, did he come to know more nearly by heart. One note is dated Dec. 6, 1919, and will come later in these annals. Two passages of the 'Religio' are marked by stars—one of them the paragraph (p. 10) beginning 'Holy-water and crucifix deceive not my judgement . . .', the other the great paragraph with which the essay opens:

For my religion, though there be several circumstances that might persuade the world I have none at all, as the general scandal of my profession, the natural course of my studies, the indifferency of my behaviour and discourse in matters of religion, neither violently defending one, nor with that common ardour and contention opposing another; yet in despite hereof I dare, without usurpation, assume the honourable style of a Christian.

The spring term of 1868 passed by without any definite decision as to his future, though there are abundant straws to indicate the direction in which he was tending. Early in the year he had written his cousin Jennette: 'I attend the Medical School every afternoon and I have been grinding at Lyell's "Principles of Geology" in vacation, hoping to get through it before term begins. I am at Dr. Bovell's every Saturday and we put up preparations for the microscope . . . Mrs. W. was here this morning and told me about a stratum in the mountain which was full of fossils; but for the deep snow I would go up and get

¹ There are one or two corrections. Thus on p. 317 of 'Urn Burial' where Browne says 'Plato's historian of the other world lies twelve days uncorrupted', &c., W. O. has changed 'twelve' to 'ten', with marginal reference to the 'Republic', Bk. X.

some for I have none from Dundas and they are difficult to find.' Moreover he had begun to make a collection of entozoa, the earliest entry in the list bearing the date 'Feb'y 7th, 1868', and on these matters he probably consulted Father Johnson, doubtless taking advantage of these Weston visits to engage in the school sports. As Mr. E. Douglas Armour of Toronto recalls :

He had left school in the summer of 1867, and I went there in the autumn term. When the cricket season opened in 1868, he used to come out to Weston where the school was then situate, to play cricket with us, and that was when I first saw him. He was a lithe, swarthy, athletic, keen-eyed boy. I don't think I ever saw anyone with such piercing black eyes. He deserved the encomium bestowed by Horace on Lycus in Book I, Ode xxxii, both for his jet-black hair and beautiful black eyes. He had a peculiar forward inclination of the body as he walked, which caused his arms to hang slightly forward and gave them an appearance of being always ready to use. He was an excellent round-arm bowler, and a batter became distinctly conscious of the strength of the lithe arm, which seemed to acquire a great part of it from his determined and piercing glance as he delivered the ball. You may think it strange that I should enlarge upon this, but the fact that it is as distinctly impressed upon my mind after a lapse of fifty-three years as if I had seen it yesterday will indicate the strong personality that a boy of eighteen or nineteen possessed.

Whether his college standing suffered because of these pastimes does not appear ; probably not, for he acquired knowledge readily. The examination papers of the next June are preserved, and very stiff examinations they were, held on successive days in *Algebra*, *Euclid*, *Greek* (Medea and Hippolytus), the *Catechism*, *Trigonometry*, *Latin Prose*, *Roman History*, *Pass Latin* (Terence), *Classics* (Honours). How he got through the trigonometry with his dislike for mathematics is difficult to conceive. And certainly the Catechism test was searching enough without the enchantment of the polyzoa to have affected his choice of a career. There were eighteen questions, such as these :

Show that the Holy Spirit is both a person and divine.

Eternal life is distinguished as being initial, partial, and perfectional. Explain and illustrate under each head from Scripture.

It is difficult for those of a later generation to imagine

the struggle and turmoil which in those days engaged men's minds. Following Cuvier and Owen, the doctrines and theories of Lyell, Darwin, Wallace, and Huxley threatened to split the very Church asunder. Some, like Wilberforce in the Church, attacked them; some, like Gosse in science, did likewise, and one may imagine, it being but nine years since 'The Origin of Species', that in discussion with his favourite pupil Johnson faced the controversy fearlessly, and that his attitude was not an ambiguous one. In those days, moreover, it was still expected that the Anglican Church would absorb one at least of a family of children, but the youth of the day were graduating from Butler's 'Analogy', which failed to satisfy them as it had satisfied Newman. Subjects more appetizing than theological revelation they were eagerly lapping up in an anonymous volume, 'Vestiges of Creation', in Lyell's 'Antiquity of Man', in Herbert Spencer's 'First Principles' and in Huxley's 'Lay Sermons and Addresses' which appeared anti-theological to a degree.

The Toronto Medical School

The summer of 1868 evidently was passed in gathering further samples of algae from the waterways in and about Dundas. Concerning one of these specimens—a mass of *Pectinatella* found in an old submerged barge near the mouth of the Humber—he consulted his botany teacher, father of the Rev. Thomas Hincks, F.R.S., the authority on the British polyzoa, into whose hands this rare finding seems thereby to have fallen.¹ He returned to Trinity for his second year in Arts, but after enduring it for a few days announced to his parents and to the Provost his determination to go into Medicine. He had come to learn his own mind and it appears to have been the only momentous decision of his life—and there were many to make—over which he long wavered. It must have caused some disappointment at home, but if so his parents were not of a sort to bring undue pressure to bear in influencing the

¹ Cf. foot-note to Osler's 'Canadian Fresh-water Polyzoa'. *Canadian Naturalist*, 1883, new series, x, 406.

choice of a career for one of their sons. Even had they been so inclined, Johnson and Bovell unconsciously drew him in another direction. Another environment, an earlier decade, would almost certainly have seen him enter the Church.

And what of his friends and preceptors? Johnson had left the Army for the Church. His two sons chose for Medicine, though one of them subsequently took Holy Orders. And Bovell in a few years came to do likewise; but at this time as soon as he heard of his young friend's decision he exclaimed: 'That's splendid, come along with me.' This the boy literally did, and during the next two years the two lived more like father and son than as teacher and pupil. From the first he evidently entered into his medical studies with the industry and enthusiasm which characterized his relation to his choice of profession to the end. A number of letters from his surviving classmates are unanimous in stating that he was exceptionally studious and faithful in attendance at lectures; that he spent most of his hours in the dissecting-room and when not so engaged was 'always to be found looking through a microscope at Bovell's cells'; that he was a general favourite not only with the class but with their preceptors, of whom Hodder, Richardson, H. H. Wright, and of course Bovell, are chiefly mentioned; and that, when 'grinding' the class, the teachers were apt to turn to Osler when others could not answer their questions. These letters, too, uniformly testify to his companionableness, and state that he was always ready for a frolic and bit of fun.

One of the sports indulged in to a very limited extent was boxing, the champion being big John Standish who could box all day. He had the strength of a giant with a kindly gentle heart and took care never to hurt anyone. The students were amused one day to see little Osler tackle the giant, and quite surprised to find that the little one was almost the only member of the crowd who could strike Standish.

Of Bovell, likewise, many tales survive—tales which emphasize his absent-mindedness—of his putting some blisters on a patient and forgetting them until three weeks later; of losing his horse and buggy, which were found standing before a house where he had called the previous day. Dr. R. H. Robinson, a fellow student of Osler's,

writes that on one occasion he felt ill, and having consulted Bovell at the Medical Building, was told to go to bed in his boarding-house, and to remain there until Bovell called the next morning. Bovell forgot about it until the third day and then took Osler with him, to look for the patient somewhere on Grosvenor Street at a number he could not remember. Robinson, who meanwhile had recovered, was out walking and saw Bovell standing in the street in evident distress while Osler was running from door to door inquiring whether there was a sick man in the house.

It is not easy to trace the activities of a medical student of fifty years ago, particularly of one who was habitually reticent about himself, so that even were the letters of the time preserved they would tell little. A visit must have been made to Weston both at the beginning and end of the Christmas recess, for under the dates '19/xii/68' and '9/i/69' Johnson records a number of microscopic specimens such as: 'Trachea of a mouse given me by W. Osler. Gly. beautifully stained.' Inasmuch as there was no course in histology in those days these specimens evidently were prepared on his own initiative by Osler himself; and Johnson in return inscribed to him as a Christmas gift Alpheus Hyatt's 'Observations on Polyzoa, Suborder Phylactokemata' which had just appeared in the Proceedings of the Essex Institute. Osler's first appearance in print describes an episode of this particular holiday season, possibly under the influence of a morning's perusal of Johnson's present. It was a short sketch entitled 'Christmas and the Microscope' which he sent to a semi-popular and now extinct English journal devoted to nature study.¹ As he said years later, this was the beginning of his inkpot career and showed his 'fondness, even at the very start, for tags of quotations; this one from Horace then a familiar friend.'

Nec iam sustineant onus,
Sylvae laborantes, geluque
Flumina constiterint acuto,

might well be said of the Canadian woods and streams at this season of the year. The earth has put on her winter robes, and under them

¹ *Hardwicke's Science-Gossip*, Lond., 1870, v. 44 (Feb. 1, 1869). Edited by M. C. Cooke.

she hides most of those objects which in summer please and delight us so much. A cheerless prospect for microscopists, one would think. So I thought, as on Christmas I sallied forth with bottles and stick in search of diatoms, infusoria, snow-peas, &c., though I did not expect to be very successful. After wandering about for some time, searching vainly for an unfrozen stream, I was about to return home with empty bottles, when I suddenly bethought myself of an old spring which supplied several families with water, and which I knew therefore would be unfrozen. In this country, wherever there is a good spring some kind individual sinks a barrel for the benefit of the community at large, and thereby benefits microscopists in no small degree, for in these you are generally sure to find a good supply of microscopic objects. When I got to the spring the first thing that greeted my sight was a piece of algae floating on the top of the water, and on a closer examination of the barrel I saw that the sides had a dark-brown coating, in which I knew diatoms and infusoria would be found. Scraping some of this off, I placed it in a bottle and retraced my steps homeward, well satisfied with my afternoon's walk. Getting home at that unfavourable time for working, just as the light is beginning to fail, I had to exercise my patience and wait till evening to see what my bottle contained. I had not long to wait, as darkness soon succeeds the light here; so when I had got a lamp lighted I proceeded to examine my spoils. A short account of the things I found may not be uninteresting to English readers of the *Science-Gossip* as it will give them some idea of what lovers of science meet with in this country. . . .

And the young microscopist of nineteen goes on to enumerate the living 'things' he was able to identify in his bottle of water. Thus his holidays were passed, and the Easter recess likewise found him collecting specimens in the region around Lake Simcoe, a goodly number of which he forwarded to Johnson from Sandy Cove and Kempenfelt Bay; and a week later on his way home, this from a horse-trough:

28/iv/69. Alga? Tindydedia &c. in gathering from a horse-trough on the road and hillside between Hamilton and Dundas, sent me by post from W. Osler to see water bears; did not find any. In Hantz fluid and sealed immediately.

In spare hours during all this first year he and Bovell were doubtless much together, and the latter's granddaughter writes:

He was about twenty in those days and literally lived at our house. He adored Grandfather and the latter loved him like a son—and

they were both crazy about the microscope. Mother [Mrs. Barwick] says her life was a perfect burden to her with weird parcels arriving which might contain a rattlesnake, a few frogs, toads or dormice. She found quite a large snake meandering around the study one afternoon, and when she protested violently, the two told her she should not have been in there. . . .

The summer vacation was largely passed at home and he must have attached himself to the family physician, Dr. A. Holford Walker, for in a paper on appendicitis written twenty years later, shortly after this malady received its baptism, he recalls having seen with Dr. Walker during this year of 1869 two cases in which the abscess had formed and discharged in the groin. But he devoted himself chiefly to his zoological collection, and from time to time forwarded to Weston some new species from Niagara Falls and elsewhere. Not only does Johnson's familiar specimen-book duly record their receipt, but it makes clear also that he again joined his disciple in Dundas during September for a series of excursions in and about their favourite hunting-grounds, which evidently supplied the Warden with material for study for some months to come.

Among Osler's several student blank-books that have been preserved is one bearing the date October 1, 1869, which is of no great significance except for one thing. It contains a few pages of notes on chemistry and materia medica (Nov. 3, '69 to Feb. 9, '70), but it is largely filled with the next year's lectures on obstetrics, chemistry, and pathology taken at McGill. In pencil on the fly-leaf in W. O.'s hand is: '*James Bovell, M.D., M.R.C.P. Prof. Nat. Theology in Trinity College Toronto. Lecturer on Institutes of Medicine, Toronto School of Med. Consulting Physician to Toronto General Hospital. Physician to Lying-in Hospital. Lay Secretary to Provincial Synod. Author of Outline of Natural Theology, &c. &c. &c. James Bovell.*' And through the book the name is scribbled whenever a lapse appears to have occurred in the lecture, or the student's mind wandered—'*James Bovell M.D. M.R.C.P.*'; '*James Bovell M.D.*' The man must have come to exercise an extraordinary influence over the boy, and to his last days, as will be seen, in moments of absent-mindedness or

when trying a pen it was the name of James Bovell that came first to paper, not his own.

In those days, before the multitudinous special subdivisions of medicine which have bid fair to crowd the fundamentals out of the curriculum, the course of anatomy extended over two years, and as the dissecting-room represented the only laboratory to which a student had access the abler ones revelled in it. The teachers of the pre-clinical branches, moreover, were at the same time practitioners; and in a lecture on aneurysm¹ delivered years later Osler wrote:

When a student in Toronto I occasionally visited the jail with our teacher of Anatomy, Dr. J. H. Richardson, and among the prisoners was an old soldier who had been discharged from the army after the Crimean War for aneurysm of the aorta, so his papers said, and, considering the large experience of the army surgeons with the disease, it is not likely there could have been any mistake.²

He goes on to say that the old man died in 1885, thirty years after the Crimean War, and Dr. J. E. Graham gave him the specimen to be drawn and described—a healed saccular aneurysm at the junction of the arch and descending aorta. It is quite likely that these visits with his teacher of anatomy aroused the inquisitive boy's special interest in aneurysm, so evident in his Montreal days; but this is anticipating. As has been stated, the outstanding recollection of him on the part of his surviving fellow students is that he was always dissecting. Dr. Albert MacDonald, who was prosector in anatomy, recalls that he 'spent more time in the dissecting-room than any other student, frequently bringing his lunch with him in order to get some extra time there. He did much of this work alone, working out problems of his own in his own way, without the aid of a demonstrator. Thus he pointed out the presence of

¹ *International Clinics*, Phila., 1903.

² James Henry Richardson was Professor of Anatomy in the Toronto schools from 1850 to 1902, and for the same period Surgeon to the Toronto Jail. He was a famous rifle-shot and fisherman, and is said to have chosen the maple-leaf as the national emblem of Canada. To Richardson as well as his other teachers in the school Osler paid tribute in his address, 'The Master Word in Medicine', given in 1903, on the occasion of the amalgamation of the Toronto and Trinity Schools of Medicine.

the *Trichina spiralis* in the muscles of one of the bodies, which no one else had observed.' This episode of the winter of 1870 sufficiently illustrates his characteristics, not so much in that it shows unusually acute powers of observation for a student, but rather in giving evidence of his wide-awakeness and his ability to use acquired knowledge, for he had already seen the trichina under the microscope, as is apparent from two sources—from Johnson's specimen-book as well as from a remarkable note-book of this period kept by Osler himself, in which occur lists of entozoa from all possible sources. Of this more will be said in its proper sequence.

Another event, in this first year's study, which had some influence on my later life, was the discovery of the *Trichina spiralis*. Dr. Cobbold has told the story of the several steps leading to the discovery and following it, in his latest work on the Entozoa. My share was the detection of the 'worm' in its capsule; and I may justly ascribe it to the habit of looking-out, and observing, and wishing to find new things, which I had acquired in my previous studies of botany. All the men in the dissecting-rooms, teachers included, 'saw' the little specks in the muscles: but I believe that I alone 'looked-at' them and observed them: no one trained in natural history could have failed to do so.

This paragraph was not written by William Osler, but occurs in the short autobiography of Sir James Paget.¹ The circumstances, however, were much the same, and Osler with his instincts as a naturalist also 'looked-at' as well as 'saw' the specks in his own turn. Literally, thousands of sections were cut and studied; specimens were sent to Father Johnson; Bovell doubtless became interested; innumerable feeding experiments were performed in the attempt to infect other animals, for at the time but little was known of the disease in America. Some six years later, in his first paper on the subject, Osler wrote:

When a student with Prof. Bovell of Toronto I had several opportunities of studying these parasites. In the month of February 1870 while dissecting a subject with Dr. Zimmerman in the Toronto School of Medicine, we discovered numerous trichinae throughout the whole muscular system, all of which were densely encysted, many

¹ The discovery was made in 1835. Cf. 'Memoirs and Letters of Sir James Paget'. Longman & Co., Lond., 1901, p. 95.

having become calcified. From a single drachm of one of the muscles of the arm I obtained 159 cysts, the greater number of which enclosed healthy-looking worms. This man was a German, and had been janitor at the hospital, where I had known him for over two years.¹

It is interesting that he says 'a student with Prof. Bovell', rather than a student at the Toronto Medical School, and it is characteristic also that he links the name of his schoolmate with the discovery, for it is evident from the personal notes accompanying his list of entozoa that it was his own.

This new and consuming interest in the entozoa had been awakened some time before—indeed, when he was still at Trinity, the earliest specimen which he records being under the date '7/ii/68'; but it was not until January 1st of 1870 that he began systematically to make a list of his specimens in a blank-book and to give detailed explanatory notes. It was quite consistent with what was still under way in his study of the Diatomaceae and fresh-water polyzoa, but it illustrates the formative stage of his habit of observing, collecting, recording, and tabulating specimens of cases, and thus preparing material for future publications. Many of the specimens are evidently carried or sent to Johnson, who duly makes such entries as this: '§ 1315. Entozoa from the mucous stomach of a bat, given me by W. Osler and put up by him.' Johnson's interest in this new subject is obviously aroused, though the preparations all appear to have been mounted by his young friend, who is rapidly forging ahead of him. Even when Osler's name is not mentioned, the source of many of Johnson's specimens may be easily traced. Thus:

22/iv/70. § 1388. Parasites on fins, body, &c., of little fish in my aquarium. They seem to have a chitinous horseshoe-shaped piece inside, & are large brown-looking things with powers of locomotion & short cells all round the edges. . . .

Whereas in Osler's records occur three corresponding entries, the first of which reads:

21/iv/70. On the fins of chub in the Rev. W. A. Johnson's

¹ 'Trichina Spiralis.' *Canadian Journal of Medical Science*, May 1876, i. 175.

aquarium were noticed several round white spots. These on examination proved to be some sort of Entozoa. In addition to these, some yellow spots were seen which seem to be a more advanced condition of the parasite. (See slide . . .)

Another entry the following day records the catching of a pike 2 ft. 7 in. long, from which he obtained '68 specimens of *Taenia* and two or three small *Ascaridæ*', the microscopical characteristics of which he proceeds to describe in detail. In no sense a Waltonian, as his son came to be, Osler nevertheless could endure fishing when it furnished side-interests of this sort, though it was easier for him on the whole, as his note-book shows, to get his specimens from the fish-market.

There can be little doubt that had William Osler at this time come under the influence of Leidy or Agassiz or possibly of Huxley, he would have gone on with his biological studies and abandoned medicine; for aside from his opportunities in the dissecting-room it would appear that the school was not proving a great success, and his lecture notes, with their 'James Bovell M.R.C.P.' scribblings, would indicate that his mind was not captured by the lectures. There is possibly one thing that might have deterred him, his ineffectiveness with his pencil, for though many of the sketches of his specimens are probably accurate enough they are lacking in any artistic quality—the only accomplishment in which the Rev. W. A. Johnson excelled his pupil. However this may be, he persisted in sketching as best he could what he saw under the microscope, and his copious notes with their accompanying illustrations of diatoms, polyzoa, and entozoa are comparable to those accompanying the notes made later on in Montreal and London when he was poring over blood specimens; those made in Philadelphia when absorbed in the malarial parasite; and those made during the first year in Baltimore on the amoebæ of dysentery, which practically ended his days with the microscope. The method of the pursuit in each instance was the same, and though occasionally he ventured to reproduce some of his own sketches in his early papers, the art of illustration was not his best card. In all these extra-curricular pursuits, though his name

appears less frequently than that of Johnson, Bovell probably figured largely, for they were much together. Nearly fifty years later Osler wrote :

It has been remarked that for a young man the privilege of browsing in a large and varied library is the best introduction to a general education. My opportunity came in the winter of '69-'70. Having sent his family to the West Indies, Dr. Bovell took consulting rooms in Spadina Avenue not far away from his daughter Mrs. Barwick, with whom he lived. He gave me a bedroom in the house, and my duties were to help to keep appointments—an impossible job!—and to cut sections and prepare specimens. Having catholic and extravagant tastes he had filled the rooms with a choice and varied collection of books. After a review of the work of the day came the long evening for browsing, and that winter [1869-70] gave me a good first-hand acquaintance with the original works of many of the great masters. After fifty years the position in those rooms of special books is fixed in my mind. Morton's '*Crania Americana*', Annesley's '*Diseases of India*' with the fine plates, the three volumes of Bright, the big folios of Dana, the monographs of Agassiz. Dr. Bovell had a passion for the great physician-naturalists, and it was difficult for him to give a lecture without a reference to John Hunter. The diet was too rich and varied, and contributed possibly to the development of my somewhat 'splintery' and illogical mind; but the experience was valuable and aroused an enduring interest in books. In such a decade of mental tumult as the '60's, really devout students, of whom Dr. Bovell was one, were sore let and hindered, not to say bewildered, in attempts to reconcile Genesis and Geology. It seems scarcely credible, but I heard a long debate on Philip Henry Gosse's (of, to me, blessed memory) '*Omphalos, an Attempt to Untie the Geological Knot*'. A dear old parson, Canon Read, stoutly maintained the possibility of the truth of Gosse's view that the strata and the fossils had been created by the Almighty to test our faith! A few years ago, reading '*Father and Son*' which appeared anonymously, the mention of this extraordinary '*Omphalos*' work revealed the identity and, alas! to my intense regret, the personality of the father as Philip Henry Gosse.

Of this mental struggle the students reaped the benefit—for Dr. Bovell was much more likely to lecture on what was in his mind than on the schedule, and a new monograph on Darwin or a recent controversial pamphlet would occupy the allotted hour. One corner of the library was avoided. With an extraordinary affection for mental and moral philosophy he had collected the works of Locke and Berkeley, Kant and Hegel, Spinoza, and Descartes, as well as those of the moderns. He would joke upon the impossibility of getting me to read any of the works of these men, but at Trinity,

in '67-'68, I attended his lectures on Natural Theology, and he really did get us interested in Cousin and Jouffroy and others of the French School. Three years of association with Dr. Bovell were most helpful. Books and the Man!—the best the human mind has afforded was on his shelves, and in him all that one could desire in a teacher—a clear head and a loving heart. Infected with the Æsculapian spirit he made me realize the truth of those memorable words in the Hippocratic oath, 'I will honour as my father the man who teaches me the Art.'¹

In regard to the 'consulting rooms' referred to in the foregoing, tradition has it that the venture was entered upon at Osler's suggestion, with the object of starting a consulting practice for Bovell and of obliging him thereby to collect his fees. The partnership is said to have continued for about a year, and apparently the business methods, or lack of them, of the senior partner, in the end prevailed. Dr. R. B. Nevitt, who entered Trinity as one of Osler's contemporaries, writes that 'he brought there no marked reputation except that he was a good fellow and held the distance record for throwing a cricket-ball'. He says further:

One afternoon I had some engagement with W. O. and called for him at Bovell's office. The room was large and bare with a few chairs and a small deal table—like a kitchen table. Osler opened the drawer of the table—Dr. B. had gone out—and said: 'Look here! This drawer has been filled to overflowing with bills two or three times this afternoon and now look.' One solitary bill lay in the drawer. As the patients paid their fees Osler placed them in the drawer. A needy patient came along, and Dr. B. reversed the process and handed money out so that the sick man might get his medicine and the food and other things required.

Many other stories of Bovell could be told—many of them probably true and many of them having Osler as an appendage. The older man was adored by all the students, though it could never be told whether the topic of his lecture was going to be medical or theological, or indeed whether he would remember to come at all; and on occasions, both at Trinity and the medical school, it devolved upon Osler to give his lecture for him. It was during the spring of 1870, despite all of his accumulating

¹ Introduction to 'Bibliotheca Osleriana' (in the press).

interests, that Osler began visiting the veterinary hospital, possibly drawn there in the first place by his interest in comparative parasitology and in the expectation of adding to his growing collection of entozoa—an expectation fully realized.¹ Nevertheless he found time to prepare for publication the results of his studies on the Diatomaceae and to forward the manuscript to Principal Dawson of McGill, who was at the same time President of the Natural History Society of Montreal.² This, his second appearance in print, Osler introduced with this paragraph:

Among the many beautiful objects which the microscope has revealed to us, none, perhaps, are such general favourites (especially with the younger microscopists) as the Diatomaceae. Their almost universal distribution—the number of species—and above all, the singular beauty and regularity of their markings—have all tended to make them objects of special interest and study. In the following paper I propose to give briefly the principal points connected with their life, history and structure, together with a list of those species I have met with in Canada . . .

The article, as W. T. Councilman has said,³ contains ‘an admirable description of the structure, mode of division, and propagation of the diatom, evidently based on personal observation’. There is mention of a ‘diatom-prism’, which he has been enabled to use through the kindness of Professor Bovell; due acknowledgement of his obligations to the Rev. W. A. Johnson is made; and he proceeds to enumerate 110 species in 31 genera collected from the haunts with which the reader has become familiar—the Don River, the cedar swamp of Weston, the wharves at Toronto, the sunken boat at the mouth of the Humber, Lake Simcoe, the Welland Canal, Coot’s Paradise, the Niagara River, and so on—and he adds: ‘Many more no doubt will be found as the number of practical microscopists increases in the country.’ One or another of these familiar haunts finds him at the close of school adding to

¹ Quite consistent with this were his subsequent associations with the veterinarians at McGill.

² The paper was not presented before the Society until the October meeting, though it was published in the June volume of the Transactions.

³ ‘Some of the Early Medical Work of Sir William Osler.’ *Johns Hopkins Hospital Bulletin*, July 1919.

the collection of entozoa obtained from a variety of creatures which were hooked, trapped, or shot—including a large male skunk! And later on at Dundas he continues through July, August, and September with this same exciting quest of the parasites in beast, bird, and fish:

13/viii/70. Shot a kingfisher. A few small Diatoms were found in the liver. The small fish which constitute the food of this bird seem not to share in the common fate of fish, inasmuch as few or immature entozoons were found in them, &c., &c.

On other days he shoots a hawk, or hooks a large black bass in Burlington Bay, or examines ten sunfish caught in the canal, and so on—a combination of sport and science, with the chief emphasis on science, to judge from the elaborate notes on his pathological findings and the scant reference to their source. Johnson must have paid another visit to Dundas early in August, for on the 16th he wrote an amusing bread-and-butter letter which Osler had preserved, and a few days later sent the following remarkable note, doubtless believing that the young student of entozoa was capable of an investigation which might have anticipated Theobald Smith:

*To W. O. from Rev. W. A. Johnson. The Parsonage, Weston, Ont.
23 Aug^t 1870.*

My dear Osler,—The cows &c. round us are all afflicted & several dying from what appears to be the bite of the little fly that teazes horses so much just now. I went out yesterday & captured 8 or 10 on the fences & sides of an old horse & by the time I got into the house from Holley's field there were 8 small maggots in the clean bit of paper. These were extruded from one of the flies. Question, Is this little fly known to be a vivipositor? If so, are these Maggots adapted to live in the skin of a living animal? The sores on the cows legs bags, &c., would show this. Could not you inspect them. The country would be benefited by knowing, because the papers are writing about a *disease*? Come over & have a look. In the mean time I will drop a line to Bethune & Hincks & find out (if they can tell me) whether said fly is a vivipositor.

Yours sincerely

W. A. JOHNSON.

During this summer vacation, if not before, Osler had determined, in all probability on Bovell's advice, to leave

the Toronto School for McGill, for it must have been apparent to both of them that the clinical opportunities in the Montreal hospitals, which were more open to students, far exceeded those which Toronto then offered. Bovell had gone to the West Indies for the summer, and before leaving must have known of his pupil's decision, and have given him a letter to Palmer Howard, then Professor of Medicine at McGill. But at the time Bovell seems to have given no intimation that he himself might not return, and though rumours to this effect had reached Osler during the summer through letters both from Johnson and from his son, Bovell's namesake, the following from Bovell himself made the matter final, and must have reconciled Osler to his own first migration.

To W. O. from James Bovell.

Spring-Well near Charles Town
Nevis West Indies.

August 11th [1870].

My dear Osler,—My last will have given you some general idea of the outline of Nevis and its gorges. This will not add much local news as I am not yet settled and cant yet get myself used to the idea that I may not get back to Canada this year. I now write to beg you to see that all my Microscopical Apparatus is very carefully packed—all the things being taken out of the very large binocular case and made to fit the smaller binocular. All the object glasses carefully put in the cases and a case made for the instrument in the Cabinet—The Specimens looked over and packed. You are to have my surgical instruments and Stethoscopes but send my Clinical Thermometer. I dont want to keep the monster Microscope stand and Eye pieces so if you like to pack carefully all the rest of the apparatus up, you can have as a present the stand and Eyc-pieces. I will next mail write you the name of the Merchant at Halifax who ships goods out to this place and if the Express will take the things down to Halifax they can come out here to me—but any thing must be put up and packed in book-binders shavings papers. I am going into the large Star-fishes of which there are many to be had out here and I am watching repair in Lizards and tubercle in Guinea pigs the last are only now breeding so I shall not have enough to begin with before October, but it is an advantage to have them. The Lizards here are very large and I hope for some good results. The [Toronto] School paid very little this year so I am not sorry to leave it although I do care a great deal leaving Richardson and my old friends of years—I cant think of Johnson without a choking for we are brothers of years affection and not even you can know how

deeply I love him. I am however not acting from choice but from necessity and duty. I have made a purchase which if watched and cared will be a fortune to my children and however little I may benefit it is to them every thing that I should be here to see after its development. I hope to be in Toronto in June unless Mrs Barwick comes this way to avoid a Canadian summer. I have not a bit of thin glass to see anything with. The 1/8th was done for by its fall and Gannot could do nothing with it. It got a crack right through it—I do hope you will work on for I have quite made up my mind that you are to get a first Class for the East India Comp^y. Write me all the news and fully—Do look after my Microscopes and see to them—Give my love to your good Father and to all who ask for me. I write you again by next mail—Love for you dear boy.

Y^{rs} affecty

J. BOVELL.

It has been said of Bovell, perhaps by Osler himself,¹ that in spite of his rich mental endowment there was, from attempting too many things, 'a want of that dogged persistency of purpose without which a great work can scarcely be accomplished', and he adds: 'It may be well for a physician to have pursuits outside his profession, but it is dangerous to let them become too absorbing.' It was perhaps just as well that Osler at this time was destined to come under the steadying influence of a less brilliant personality. Nevertheless, in spite of, or because of, Bovell, it is apparent that in this last year at Toronto Osler laid the foundations of what were to be his subsequent habits of life. The cornerstone of the foundation was work and the finding of this a pleasure. To this were added three qualities, of which he speaks in a later address² to medical students: the Art of Detachment, the Virtue of Method, the Quality of Thoroughness; and to these he adds a fourth as essential to permanence—the Grace of Humility. He commends to them what obviously he had by this time learned himself:

In the first place, acquire early the *Art of Detachment*, by which I mean the faculty of isolating yourselves from the pursuits and pleasures incident to youth. By nature man is the incarnation of idleness, which quality alone, amid the ruined remnants of Edenic

¹ Cf. an unsigned obituary notice in the *Canadian Journal of Medical Science*, 1880, v. 114.

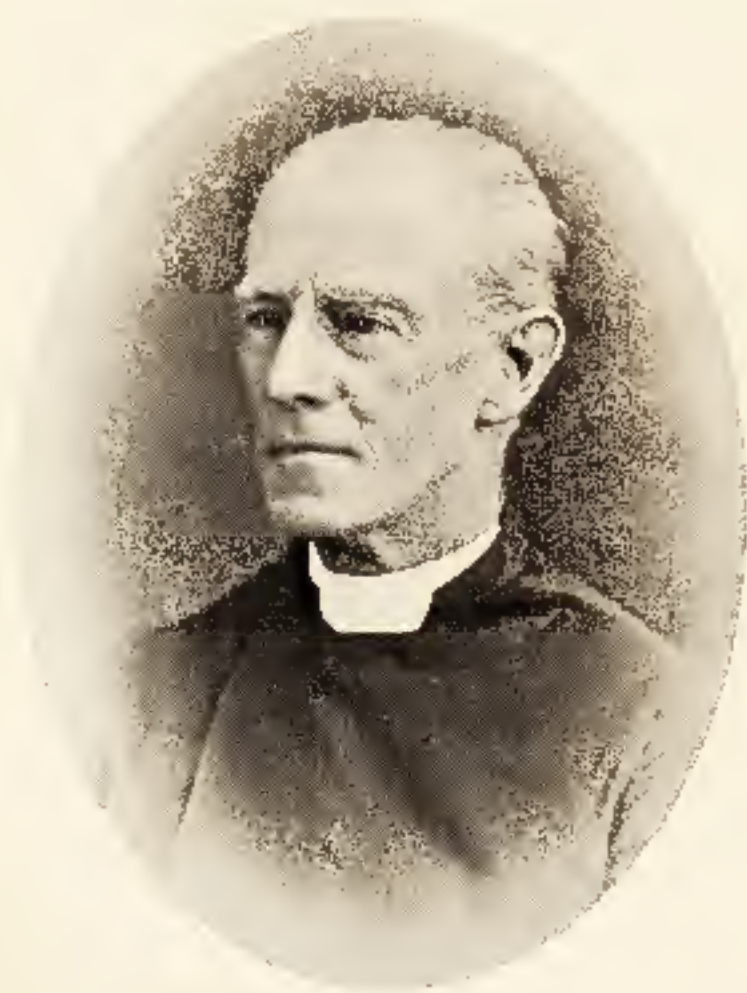
² 'Teacher and Student.' 1893.

characters, remains in all its primitive intensity. Occasionally we do find an individual who takes to toil as others to pleasure, but the majority of us have to wrestle hard with the original Adam, and find it no easy matter to scorn delights and live laborious days. Of special importance is this gift to those of you who reside for the first time in a large city, the many attractions of which offer a serious obstacle to its acquisition. The discipline necessary to secure this art brings in its train habits of self-control and forms a valuable introduction to the sterner realities of life.

Twenty-three years later in an address¹ given in Toronto on the occasion of the amalgamation of the Toronto and the Trinity Schools of Medicine, Osler paid the following 'tribute of filial affection' to the man from whom he was now in this summer of 1870 to become separated:

There are men here to-day who feel as I do about Dr. James Bovell—that he was of those finer spirits, not uncommon in life, touched to finer issues only in a suitable environment. Would the Paul of evolution have been Thomas Henry Huxley had the Senate elected the young naturalist to a chair in this university in 1851? Only men of a certain metal rise superior to their surroundings, and while Dr. Bovell had that all-important combination of boundless ambition with energy and industry, he had that fatal fault of diffuseness, in which even genius is strangled. With a quadrilateral mind, which he kept spinning like a teetotum, one side was never kept uppermost for long at a time. Caught in a storm which shook the scientific world with the publication of the 'Origin of Species', instead of sailing before the wind, even were it with bare poles, he put about and sought a harbour of refuge in writing a work on Natural Theology which you will find on the shelves of second-hand bookshops in a company made respectable at least by the presence of Paley. He was an omnivorous reader and transmuter, he could talk pleasantly, even at times transcendently, upon anything in the science of the day, from protoplasm to evolution; but he lacked concentration and that scientific accuracy which only comes with a long training (sometimes, indeed, never comes) and which is the ballast of the boat. But the bent of his mind was devotional, and, early swept into the Tractarian movement he became an advanced Churchman, a good Anglican Catholic. As he chaffingly remarked one day to his friend the Rev. Mr. Darling, he was like the waterman in 'Pilgrim's Progress', rowing one way, towards Rome, but looking steadfastly in the other direction, towards Lambeth. His 'Steps to the Altar' and his 'Lectures on the Advent' attest the earnestness of his convictions; and later in life, following the example of Linacre,

¹ 'The Master Word in Medicine', 1903.



W.A. Johnson



James Bovell



R. Palmer Howard

OSLER'S THREE TEACHERS

he took orders and became another illustration of what Cotton Mather calls the angelical conjunction of medicine with divinity. Then, how well I recall the keen love with which he would engage in metaphysical discussions, and the ardour with which he studied Kant, Hamilton, Reid and Mill. At that day, to the Rev. Prof. Bevan was intrusted the rare privilege of directing the minds of the thinking youths at the Provincial University into proper philosophical channels. It was rumoured that the hungry sheep looked up and were not fed. I thought so at least, for certain of them, led by T. Wesley Mills, came over daily after Dr. Bovell's four o'clock lecture to reason high and long with him.

On Providence, Foreknowledge, Will and Fate,
Fixed Fate, Freewill, Foreknowledge absolute.

Yet withal his main business in life was as a physician, much sought after for his skill in diagnosis, and much beloved for his loving heart. . . . When in September 1870 he wrote to me that he did not intend to return from the West Indies I felt that I had lost a father and a friend; but in Robert Palmer Howard, of Montreal, I found a noble step-father, and to these two men, and to my first teacher, the Rev. W. A. Johnson, of Weston, I owe my success in life—if success means getting what you want and being satisfied with it.

CHAPTER IV

1870-2

THE MCGILL MEDICAL STUDENT

IN a later address¹ Osler gave the following thumbnail account of his two years in the McGill Medical School :

When I began clinical work in 1870, the Montreal General Hospital was an old coccus- and rat-ridden² building, but with two valuable assets for the student—much acute disease and a group of keen teachers. Pneumonia, phthisis, sepsis and dysentery were rife. The ‘services’ were not separated, and a man for three months looked after medical and surgical patients, jumbled together in the same wards. The physic of the men who were really surgeons was better than the surgery of the men who were really physicians, which is the best that can be said of a very bad arrangement. . . . Scottish and English methods prevailed, and we had to serve our time as dressers and clerks, and, indeed, in serious cases we very often at night took our share in the nursing. There were four first-rate teachers of medicine on the staff—Howard, Wright, MacCallum and Drake—three of whom had learned at first hand the great language of Graves and of Stokes. The bedside instruction was excellent and the clerking a serious business. I spent the greater part of the summer of 1871 at the hospital, and we had admirable out-patient clinics from Dr. Howard, and a small group worked in the wards under Dr. MacCallum. An excellent plan, copied from an old custom of the *Lancet*, was for the clinical clerk to report the cases of special interest under *Hospital Practice* in the local medical monthly. My first appearance in print is in the *Canadian Medical and Surgical Journal*, reporting cases from Dr. MacCallum’s wards. Our teachers were men in whose busy lives in large general practice the hospital work was a pleasant and a profitable incident. A man like Palmer Howard got all that was possible out of the position, working hard at the hospital, studying the literature, writing excellent papers, and teaching with extraordinary care and accuracy; naturally such a man exercised a wide influence, lay and medical. I left the old General Hospital with a good deal of practical experience to my credit and with warm friends among the members of the staff.

On his way to Montreal Osler appears to have stopped at Weston, and while there must have been consulted regarding ‘Jimmie’ Johnson’s choice of a career: ‘Father’ Johnson at least sent after him post-haste a letter on the

¹ ‘The Medical Clinic’: *British Medical Journal*, Jan. 3, 1914.

² Rat-riddled? ‘At the foot of your rotten-runged, rat-riddled stairs’.

subject, though a scoop from the Grenadier Pond was evidently a matter of greater concern at the moment, and 'Jim' must wait. His English cousins, Marian and Jennette, the former now Mrs. Francis, had returned to Canada two years previously, and had settled at Montreal. Featherstone Osler in a letter to his sister Elizabeth in Cornwall mentions that 'Willie has gone to McGill College where the hospital advantages are greater than at Toronto. I wish to give him every advantage in my power though it is very expensive. Chattie went with him for a visit to Marian. She has not been very well lately and we thought a change would do her good.'

Montreal in the '70's and for some years to come had unquestionably the best medical school in Canada, and the opportunities offered to students were possibly rivalled by those in only one city in the States—namely, in Philadelphia. The McGill school, founded by Scotchmen, had from its inception closely followed the educational methods in vogue at Edinburgh, where only the year before, a young man named Joseph Lister had been called from Glasgow to succeed Syme as Professor of Surgery. The school, moreover, was in the process of being moved from its old site on Côté Street to the university grounds, where a new building, whose foundations were laid in 1869, had just been completed. The 'hospital advantages' spoken of by Osler's father were those at the Montreal General, which like the Edinburgh hospitals was in close affiliation with the school, and students were given a degree of freedom in the wards such as existed in no other large hospital on the continent. In the Upper Canada schools at Toronto and Kingston, on the other hand, traditions of the great London hospitals largely prevailed—traditions in themselves as worthy of emulation as those of Edinburgh, but one only needs to consult the Canadian medical journals of the late '60's and early '70's to learn that in Toronto much dissatisfaction was rife, and that the staff and the trustees of the Toronto General Hospital were at loggerheads over matters relating to medical instruction.¹

¹ In September of 1869 the Canadian Medical Association had met in Toronto, at which time Palmer Howard, the Professor of Medicine at McGill

A number of students had already gravitated to Montreal from Toronto, and among those living on Lower St. Urbain Street were six of Osler's particularly intimate friends: 'Charlie' Locke and Clarkson McConkey, former school-mates at Barric, Thomas Johnson of Sarnia, Keefer, later of the Indian Army, Arthur Browne of Montreal, and Harry P. Wright of Ottawa. They were a youthful group, most of them graduating before they were of sufficient age to receive their diplomas, but they were of robust appearance, and this 'St. Urbain clique' came to be known as the 'bearded infants'. Harry Wright, who became Osler's room-mate, is said always to have laughed in later years when Osler's name was mentioned, and one may imagine that his love of innocent fun and addiction to surprising pranks was rampant at this time, though a greater love of serious work was becoming deeply ingrained. These two, Harry Wright and Osler, were taken up by Palmer Howard, and came to be constant visitors in his household, where Sunday dinner always found them.

To judge from Osler's student note-books, Howard must have been a systematic teacher of the old school, one who presented his topic under headings in a way very gratifying to students, '*Zymotic diseases*: due to a specific poison. They have been called miasmatic and the poison which produces them has been called morbid, etc.', and there is a good deal of stress laid on therapeutic measures, all of which sounds rather old-fashioned—this presentation of medicine of fifty years ago. Throughout, the young student is evidently very attentive and has less temptation, or less opportunity perhaps, to scribble his favourite preceptor's

and President of the Association, had read two notable reports on preliminary and on professional education in medicine. He had recommended not only a high standard for matriculation with examination requirements, but a four-years' professional course of nine instead of the usual six months and no diploma to be given before the age of twenty-one was attained. It is of interest that Dr. Davis, of Chicago, the founder of the American Medical Association, was present at the meeting and urged the Canadians to adhere to these high standards as the example would be an influence in the establishment of something comparable to them in the States. There was much discussion over these matters which must have reached the ears of the students.

name on the pages, as he comes later to do while taking lecture-notes on mental diseases, medical jurisprudence, materia medica, and chemistry, fragments of which are in these same student volumes.

From W. A. Johnson to W. O.

The Parsonage, St. Philip's,
Weston. 20th Octb 1870.

My dear Osler,—Your kind letter was duly received and gave me much pleasure. I hope your connection with McGill will prove an advantage to you in many ways. The size of the city and its various opportunities may prove of service alone, and the change of ideas together with seeing and knowing different persons ought to be of great service too. Jimmy tried the examination and failed not in things of any importance, but as the examination was suited chiefly for aged school masters and such like [etc.]. . . . I send you by this mail a little bottle which you will easily get at by picking away the corks with your pen knife at both ends and the bottle will drop out. It contains specimens of my stranger. *Vaginicola*? I suppose but can not find anything in my illustrations like it. The two that are attached, one to a green leaf, the other a dry, were free when I put them into a saucer. No doubt some naturalist will tell you the name. If so let me know. The tentacles are very like those of *Hydra*. . . . I send you also a copy of Taylor's *Holy Living*. I have returned to my habit as a boy of reading a few lines of it every morning before going downstairs, and am not a little pleased to see in it the origin of all my religious that is practically religious ideals. It is a little book well worth using as a friend. Its teaching is higher than any High Churchism of the present day and in many things more plainly to the point. Liking Sir T. Browne as you do, you will be pleased with it and I trust and pray it may long be your friend and companion. We have not anything new doing here. The Dr [Bovell] is not likely to return this year. . . . Remember me very kindly to your Sister and tell me who you find in Montreal to talk to about religious or Church matters, as well as scientific. Let me hear from you frequently. It is a sort of duty I would like to exact from you, as well as a great pleasure to me. Hoping it will please God to bless you with health of mind and body and a strong zeal for others welfare believe me Very faithfully yours

W. A. JOHNSON.

The young Osler must have pondered considerably over this letter, for 'James Bovell, M.D., M.R.C.P.' is written meditatively on its margins. 'Father' Johnson, apparently somewhat upset by his son's failure to meet the matriculation requirements, expresses relief at his entering Trinity,

and quickly passes on to more agreeable subjects—to things put up in balsam and glycerine, and to matters of religion. He makes no mention of his own troubles, which must have been acute at this time, for he was in open opposition to his bishop, and the school he had founded was taken away from him in this year of 1870, and moved to its present home at Port Hope. Johnson, alas, was in matters of theology a born controversialist, and it is not unlikely that this may have reacted upon his most famous pupil, for Osler either had a native aversion to, or in some way acquired the happy gift of avoiding, what his first preceptor seemed destined to fall into—controversies. And in the end, as Dr. Garrison says :

What made him, in a very real sense, the ideal physician, the essential humanist of modern medicine, was his wonderful genius for friendship toward all and sundry ; and, consequent upon this trait, his large, cosmopolitan spirit, his power of composing disputes and differences, of making peace upon the high places, of bringing about 'Unity, Peace and Concord' among his professional colleagues. 'Wherever Osler went', says one of his best pupils, 'the charm of his personality brought men together ; for the good in all men he saw, and as friends of Osler, all men met in peace.'

But Johnson need have had little worry for his young friend's spiritual welfare at this time, nor lest Taylor's 'Holy Living' be not read like the 'Religio Medici', a few lines a day. For during his medical-school period he was a regular attendant at early service at the then little Chapel of St. John the Evangelist near where he lived, and it was not until several years later that he became a casual church-goer.² One would be interested to know the tenor of his

¹ From the Foreword in 'A Physician's Anthology of English and American Poetry'. Oxford University Press, 1920. Selected and arranged by Casey A. Wood and Fielding H. Garrison.

² His copy of 'Hymns Ancient and Modern' is preserved. On the fly-leaf he has written '*W. Osler, Easter 1871*', and below there follows '*Holy Trinity Toronto. St. John the Evangelist's Montreal. All Saints, Margaret Street, London.*' All Saints is near Portland Place, and while in London in 1872-4 he and Arthur Browne lived not far away in Gower Street. The Rev. Arthur French has sent this note of Osler's relation to St. John's during his student days :

'This "little church round the corner" was greatly valued by many of the Montreal medical men at that time ; it was not only situated near

Christmas letter to Johnson which brought forth this reply :

From W. A. Johnson to W. O.

The Parsonage, Weston, Ont.
25 Decbr 1870.

My dear Osler,—Your very affectionate and thoughtful gift and letter are both at hand. The Photo. is very good, and I am delighted to have it. Montreal has surely agreed with you. I could not ask a greater treat than such a work as 'Preparation for Death' by Alfonso, Bp. of Agatha. The subject is one of all others that I like best : really believing as I do that, 'better is the day of a man's death, than the day of his birth', and it is divided into short meditations just suited to my time early in the morning, when I can generally make 1/2 of an hour before I go down to Chapel. Talking of the Chapel almost everyone feels it is a success. One thing seems pretty clear, that almost any thing would be admitted now in the way of adornment. The cross stands out or peeps through at every arch and every window and we had two vases of flowers on the altar tonight and up at the Church the girls have made crosses between

the old Medical School on Coté Street, and very near the General Hospital, but it was under the spiritual direction of the Rev. Edmund Wood, nephew of Aston Key the once well-known surgeon at Guy's. Mr. Wood had won the affectionate regard of the medical faculty generally, and of the students, by his faithful ministrations to the patients in the hospital, and to the poor who were numerous in the district where the medical students then lived.

'The periods of the lenten season and of the final medical examinations often synchronized, as it did in, I think, the year in which Sir William took his medical degree and greatly distinguished himself. The pressure on the time of this industrious and methodical student did not lessen his regular attendance at the daily service, even at the time, so important to him, of his examination.

'Though with succeeding years there was modification of the manner of showing his appreciation and attachment to "the practice of religion", there were throughout his life signs, though latent, that it always existed. He not only was a personal supporter for a considerable time of the work of St. John's, but to the last it was his custom, in many of his frequent visits to Montreal in later years, to call upon his friend and rector, Mr. Wood. His last visit to him was shortly before the latter's death and was marked by Sir William's suggestion that he should collect a fund, among former colleagues, to erect a memorial in the church to Dr. Wright. The latter had been Professor of Materia Medica at McGill, in both the student and professional days of Sir William, and also subsequently being ordained, joined the staff of clergy of the church. Notwithstanding the death of Mr. Wood, the memorial was erected and stands to-day not only as a mark of appreciation of one who was both his instructor and colleague, but also of the attachment Sir William had to his old friend and rector, Mr. Wood, and also to the church which as a student he was accustomed regularly to attend.'

each window and even unhappy Couron begins to fancy he can permit them and still worship.¹ These little things are an advance to a certain extent, but still it is humiliating to see how little we accomplish. Surely one might expect that at this season of Advent a few would try to examine their ways and seek counsel and advice at the mouth of God's ambassadors. Among the papists there seems to be a general waking up during advent. In the city and here they are thronging daily to confession before Xmas. Possibly they may err greatly in this, but do not we err in totally neglecting it? . . . I am glad you saw Prof^r Dawson. You know all I have of the Polyzoa and anything you want I will gladly draw write or send. Prof^r Hincks hopes to give me the name of that (larva?) with such beautiful tentacles. Shew it to Prof Dawson and see if he knows anything of it. Hoping you may live to be blessed in fulfilling all your hopes and expectations believe me very affectionately yours
W. A. JOHNSON.

These 'hopes and expectations' of which he was writing to Johnson must have concerned an elaboration of his entozoan collection, for preserved with Johnson's epistle is a fragment in Osler's hand, evidently the first draft of a letter to some authority recommended by Principal Dawson. For he says under the date 'Jan'y 4th 1871':

I have been engaged for a short time in the study of entozoa and find great difficulty in getting the species described. On consulting Prof. Dawson as to who would be the most likely person to aid me, he referred me to you. I subjoin a list of those I have met with and the creatures in which they are found; hoping you will be able to either name them or refer me to papers in which they have been described, etc.

J. W. (later Sir William) Dawson, F.R.S., at this time Principal of McGill, was largely responsible, with the financial backing of Sir William Macdonald, for the building up of a real university out of what before 1870 had been little more than a flourishing medical department. Primarily a geologist and a follower of Lyell, he was much interested in the theory of evolution, about which he had his own ideas: 'The egg grows into the animal and the organism produces the egg again. This is revolution, not evolution.' But he was not only Principal: he held the Chair of Botany

¹ Johnson's efforts to adorn his chancel with the customary symbols of the Christian belief had been regarded as popish if not idolatrous by many of his parishioners, who on more than one occasion had broken into the church and demolished them.

and Zoology, subjects covered in the primary medical courses, and was at the same time President of the Montreal Natural History Society before which Osler's paper on the Canadian Diatomaceae had been presented on October 31st of 1870. This may have served to draw his favourable attention to the young medical student who had come up from Toronto for his final clinical years; and that he was duly impressed will appear from a later episode. Osler, indeed, had already begun to make his mark in the school, and though doubtless a prejudiced witness, his cousin Jennette writes in January to his mother: 'Willie has shed the light of his countenance upon us this evening. I cannot tell you what a pleasure it is to us to have the dear, merry fellow coming in and out and to look forward to our Sunday treat. We hear his praises on all sides and from those whose good opinion is hard to win and well worth having. He is pronounced "thoroughly reliable", "as good as he is clever", "the most promising student of the year", and finally from a learned professor, slow to praise, "a splendid fellow".'

Despite his prescribed hospital 'clerking' referred to as 'a serious business', Osler not only found time for some outside reading, but as the interview with Principal Dawson showed, was still engaged with his entozoan collection. Specimens were obtained from many sources, as his notes indicate—from the Montreal fish-market, from the Natural History Society through whom he secures a dead lynx for study; '8/3/71. From a rat at Montreal General Hospital I obtained 5 *Taeniae* from low down in intestine—a small fine species with motor-vascular system very distinct', etc., etc. Certainly not the usual pursuits of a medical student of the '70's. Whether he never heard from the parasitologist to whom he wrote early in the year, or whether he became so engrossed in the clinical studies, to be his life's chief interest, that his further pursuit of entozoa was necessarily side-tracked, is impossible to tell. For one reason or another he never worked up his collection of specimens for publication, though he always retained a live interest in the subject.¹

¹ His early studies had possibly been stimulated by Casimir Davaine's book (1860) on 'Entozoa in Man and Animals', or more probably by

Occupied as he had been with these extra-curricular studies, the brief Franco-Prussian War of the preceding months, now coming to a settlement, does not appear to have touched very deeply if at all the young student whose medical career spanned the two great European wars of his generation, in the last of which the heart-breaking tragedy of his life was to occur. In the family letters of this time sent to the Cornwall relatives there are, to be sure, occasional references to 'the horrors of war raging', but home news is of greatest interest, and of her son's progress Ellen Osler writes: 'I will send one of Willie's photos as soon as I can get them from Montreal where he is going on in a very satisfactory manner a great favourite with every one, with the leading medical men especially, so I ought to be thankful, indeed I have been very lovingly dealt with in every way all the past years of my life, and only wish I had a more grateful heart.'

Word had come early in the year, that Bovell had decided to take Holy Orders in the West Indies (this despite the rumour that he was one of the organizers of the new 'Trinity College Medical School just projected), and two days after his ordination, it being Johnson's birthday, he sends this letter which Johnson evidently forwarded to Osler, among whose very scant residue of old letters it has been found:

Rev. W. A. Johnson from James Bovell. Clare-Hall, St. John's,
Antigua, W. I.
June 27th 1871.

My dear Johnson,—As you may fancy my thoughts to-day went by telegraph to Weston, and I am spending a deal of time in the old arm chair with you. The worst part of the business is, that although you are visible to me, you are as dumb and silent as ghosts who come to earth. The paper cutter is in your hand and the Church Times is being opened and you are grumbling about Bennett

Thomas Spencer Cobbold's 'Entozoa' (1864). He probably did not know Rudolph Leuckart's 'Die Parasiten', recently translated (1867), though it was with Leuckart that he subsequently studied in Leipzig. Chiefly through his active support a special course in parasitology was given to the Johns Hopkins students during his period there, and years later he was instrumental in securing for McGill a professorship in Parasitology whose first incumbent was Dr. John Todd.

and Purchas, but hang it all you wont converse. Well then I will come back from reverie to earth and take to writing. Here I am in the good Bishops house; over an examination and waiting to go down to Nevis to take up, as Rector, the United Parishes of St George and St John. It seems very wonderful, very mysterious. . . . On Saturday the 25th in the Cathedral I was called to the holy order of Priest and now here I am flesh and blood set to do God's work. The time is short and there is a deal to do, but having stood so long in the Market Place idle and no man having hired me, now that I have found a Master let me go in too for the [illegible]. The Work is very severe and the area comparatively large and populous but still I can do a great deal. I intend to keep up my four services those on Sunday and on Wednesdays and Fridays; and I have just got our school going with 115 children. In St John's Parish, I have been bundling out a Three-decker and Kitchen Table, and have got in a neat Chancel, proper altar, Lectern Prayer desk and 10 new sittings round the Chancel. By degrees things will go well. I wish you would send me the address of the man who sent you the paper for the Church. I want to get as much as will do the Chancel Walls of both Churches. How I wish I was near you now. I dont despair. Some day when I have set the two old decayed parishes up and made the work easy, I will run back to the old place and end my days in the snow. . . . I am trying to get you a collection of ferns which I hope to find an opportunity of sending through Halifax. I have not looked at an object since I left Toronto, and I dare not even think for five Minutes of any work that is past. We wont talk about it. I long to hear from the Provost for he does give one such good advice and useful hints. . . . Now my reading for examinations is over I will have more leisure for writing and dear Osler shall have a scrawl. Tell Jim I will send him a letter about the Medical Books. Osler can help him select them. Love for all. Farewell old fellow.

Yr affect

J. BOVELL.

One of the few of Osler's early letters which have come to light dates from this period. That there are not more of them is lamentable, in spite of his sharing the strong family characteristic of reticence regarding his personal doings. It makes clear that even in his youth words so ran from his pen that it was left for others to dot the i's and cross the t's for him:

To his sister Charlotte from W. O. Montreal, July 6th [1871].

My dear Chattie, First and foremost you may mention casually that though I am 'too proud to beg too honest to steal' yet I shall be reduced to one or other remedy before long unless a check arrive

soon. Lazarus was nothing compared to what I have been for nearly three weeks. Drat the dimes. I wish we could get along without them. I got your letter to-day, after being five weeks from home & thought it time. Marian's baby was baptized on Tuesday afternoon & was honoured by me standing Godfather. I am so glad poor Frank has got home safe & sound, give him my love. Tell Molly to take her boy if he is a good one & not likely to take to drink & abuse her. If he does I will be down on him. Poor Hal! wonder he did not break his neck, he may yet. I am up to my eyes in work, but keep healthy & as we have had no very hot weather it has been quite endurable. Such a nice fellow is boarding here now called Henderson. I knew his Sisters when I was at Weston. He is a St Johnsite & a high 'un and good 'un too. There has been a jolly flare up at St Johns. Deacon Prime circulated two copies of an extreme sheet called the 'Rule of Life'. Mr Wood & Mr Norman were accused of it at the Synod & both declined to answer then but would answer their Bishop. Luckily they knew nothing about it, but poor Prime has had his license taken away. On Sunday last Mr Wood preached a Sermon on it & acknowledged that though he could not hold it all himself he would not quarrel with any of his Parishioners if they did. He took exception principally to 'prayers for the dead'. It was a regular 'Confession of Faith' on his part & was splendidly given. I will send you a copy of the Rule &c. when I get some surplus cash, but *don't* you circulate it (on the Guv's account) as it is strong meat not fit for Protestant babes to chew. I am glad Dr Locke progresses, tell him my letter is coming & hint that his has most probably been detained at the Dundas P. Office. Ask him to hunt it up. How does your lad get along in England. Tell him not to forget to hunt me up when he is on his way back. 48 St Urbain St is my number yet. Our Dutch is progressing but not as rapidly as I would wish. I have so little time to spare for it. Forgive this scrawl, you dot the I's and cross the T's for me. Love to Mammy, aunt & all

Yours

BENJ.

As will be seen, being hard up was no uncommon thing for one who habitually behaved with his own meagre resources as Bovell did with his patients' fees, which went out as fast as they came in. The 'Rule of Life', the 'extreme sheet' which raised such a rumpus at St. John's, must have been similar to some of the tracts often found in Rev. W. A. Johnson's possession, to the consternation of some of his parishioners, being strong meat, not fit for the orthodox like Canon Osler.

The summer of 1871 was spent largely in Montreal,

according to his own statement in one of his later lay sermons,¹ and it was at this time that he came into particularly filial relationship with Palmer Howard, whose library was put at his disposal. He was probably clerking in the General Hospital, and attending the post-mortem examinations there, and he confesses that 'much worried as to the future, partly about the final examination, partly as to what I should do afterwards, I picked up a volume of Carlyle . . .', and in it read the familiar sentence, 'Our main business is not to see what lies dimly at a distance but to do what lies clearly at hand'—the conscious starting-point of a habit that enabled him to utilize to the full the single talent with which he often said he had been entrusted. It was, in his estimation, one of the two trifling circumstances by which his life had been influenced, the first having been the paragraph in 'Father' Johnson's circular of announcement stating that boys would learn to sing and dance ('vocal and pedal accomplishments' for which he was never designed)—a paragraph which diverted him to Johnson's school in Weston. The other trifling circumstance was the line from Carlyle. Thirty years later in an impromptu talk² to the students of the Albany Medical College, he is reported to have said:

I started in life—I may as well own up and admit—with just an ordinary everyday stock of brains. In my schooldays I was much more bent upon mischief than upon books—I say it with regret now—but as soon as I got interested in medicine I had only a single idea and I do believe that if I have had any measure of success at all, it has been solely because of doing the day's work that was before me just as faithfully and honestly and energetically as was in my power.

How he found time to acquire his familiarity with general literature has always been a source of mystery to Osler's many friends. Probably it was at this early period that he began his life-long habit of a half-hour's reading in bed before putting out his light. Most medical students, alas, are too engrossed with their work for such literary pursuits, desirable though they may be. But he never ceased to

¹ 'A Way of Life.' An address to Yale students, 1913.

² Delivered Feb. 1, 1899. Cf. *The Albany Medical Annals*, June 1899, xx. 307-9.

encourage the habit, and the books he recommended¹ as a student's bedside library in all likelihood represent those with which he himself became acquainted in this way.

Until 1870 the McGill Medical School had been run on a proprietary basis, and the teaching was almost entirely in lecture form and given by general practitioners. The Chair of *Materia Medica*, for example, fully stuffed with time-honoured drugs, was occupied by William Wright, who incidentally had considerable repute as a surgeon, and subsequently became a preacher. Robert Craik held the Chair in Chemistry and later became the Dean of the Faculty. Lectures on the Institutes of Medicine, which comprised what is now recognized as physiology and pathology, were given by William Fraser, a graduate of Glasgow, though there was no semblance of a laboratory until Osler himself in 1875 succeeded to the chair. A bluff Englishman named William Scott was Professor of Anatomy, who rarely if ever was known to enter the dissecting-room, this disagreeable duty being left to his demonstrator; and the material is said to have been obtained from convenient cemeteries by the French students, who thereby paid their school fees. All this, which resembled the Edinburgh programme of an earlier day, was soon to be revolutionized by Francis J. Shepherd, one of Osler's contemporaries and intimates.² Indeed, as will be seen, there were a number of youngsters among the students of the day, who in the course of a few years were destined to take over and instil a modern spirit into the pre-clinical years of the old school. Of the clinical teachers whom Osler came under, there was Duncan MacCallum in midwifery, who leaned heavily, in his meticulous lectures, on the traditions of the Dublin Rotunda, but otherwise was chiefly occupied with a lucrative practice, so that the senior students were largely left to their own resources at the Lying-in Hospital. Another was George W. Campbell, Dean of the Faculty and Professor of Surgery, a vigorous and confident operator trained

¹ 'A Bedside Library for Medical Students.' Appended to 'Aequanimitas and other Addresses'. 1904.

² Cf. Dr. Shepherd's privately printed 'Reminiscences of Student Days and Dissecting Room'. Montreal, 1919; written at Osler's solicitation.

in pre-antiseptic days, for Lister at this time was little more than a rumour in Canada, if even that, and the surgeon of the day operated in his ordinary clothes, collar, cuffs and all, the more particular ones, indeed, in a frock-coat. There was a short course, too, in medical jurisprudence, and the clinics at the old General Hospital were conducted by George E. Fenwick in surgery and J. Morley Drake in medicine. Fenwick was a bold operator of pre-Listerian type, his house surgeons at the time being George Ross and Thomas G. Roddick, of whom more will subsequently be heard; and Roddick a few years later brought back from Edinburgh the 'Lister ritual' which was to transform surgery. J. Morley Drake soon succeeded Professor Fraser in the so-called Institutes of Medicine, though he gave up the post two years later, when it became filled by a new type chosen from the younger generation.

But the member of this faculty to whom Osler was chiefly indebted was R. Palmer Howard—a courtly gentleman, scholarly, industrious, stimulating as a teacher; and though the students of the day felt that he was devoid of humour, he nevertheless was popular with them, and even at this time was one of the chief figures in the school of which in 1882 he became Dean. Like his colleagues he, too, was a general practitioner of surgery as well as physic, but where he perhaps differed chiefly from them was through his interest in morbid anatomy, an interest with which he succeeded in inoculating some of his pupils. In a later address Osler gave this picture of him:

In my early days I came under the influence of an ideal student-teacher, the late Palmer Howard of Montreal. If you ask what manner of man he was, read Matthew Arnold's noble tribute to his father in his well-known poem, 'Rugby Chapel'. When young, Dr. Howard had chosen a path—'path to a clear-purposed goal'—and he pursued it with unswerving devotion. With him the study and the teaching of medicine were an absorbing passion, the ardour of which neither the incessant and ever-increasing demands upon his time nor the growing years could quench. When I first, as a senior student, came into intimate contact with him in the summer of 1871, the problem of tuberculosis was under discussion, stirred up by the epoch-making work of Villemin and the radical views of Niemeyer. Every lung lesion at the Montreal General Hospital had

to be shown to him, and I got my first-hand introduction to Laennec, to Graves, and to Stokes, and became familiar with their works. No matter what the hour, and it usually was after 10 p.m., I was welcome with my bag, and if Wilks and Moxon, Virchow or Rokitanski gave us no help, there were the *Transactions* of the Pathological Society and the big *Dictionnaire* of Dechambre. An ideal teacher because a student, ever alert to the new problems, an indomitable energy enabled him in the midst of an exacting practice to maintain an ardent enthusiasm, still to keep bright the fires which he had lighted in his youth. Since those days I have seen many teachers, and have had many colleagues, but I have never known one in whom was more happily combined a stern sense of duty with the mental freshness of youth.¹

It has been said that the school borrowed its traditions largely from Edinburgh. These were a mixture of work and hilarity, and though there were no rival political parties such as Edinburgh sees engaged in active warfare in connexion with its rectorial elections, there was gaiety enough, and what were in the day called 'footing sprees' were bibulous affairs, for the expense of which the seniors were privileged to tax the freshmen. The annual 'Founders' Festival' was another occasion in which the students took untold liberties with their seniors and played practical jokes of a kind it has long been the tradition of unbridled students the world over to play. Though at the time he was a 'teetotaller', Osler doubtless entered into all these pranks with as much spirit as any, for there are certain dispositions which do not require any adventitious stimulus to enliven them. But though among the gayest when occasion offered, better than most young men he had learned to conserve his time, and though not a gold-medallist of his class he received at the end of the term an honourable mention of unusual sort. The prizes announced at the annual convocation of 1872 were as follows:

(1) The Holmes Gold Medal awarded to the graduate receiving the highest aggregate number of marks for all examinations, including primary, final and thesis. [Awarded to Hamilton Allen.]

(2) A prize in Books, for the best examination—written and oral, in the Final branches. The Gold Medallist is not permitted to compete for this prize. [Awarded to George A. Stark.]

¹ 'The Student Life.' 1905. Cf. 'Aequanimitas and other Addresses'.

(3) A prize in Books, for the best examination written and oral, in the Primary branches. [Awarded to Francis J. Shepherd.]

(4) The Faculty has in addition this session awarded a special prize to the Thesis of William Osler, Dundas, O., which was greatly distinguished for originality and research, and was accompanied by 33 microscopic and other preparations of morbid structure, kindly presented by the author to the museum of the Faculty.

The gentlemen in order of merit who deserve mention :—In the Final examination, Messrs. Osler, Browne, Waugh, Marceau, Hebert, Pegg, St. John, and Morrison. In the Primary examination, Messrs. Alguire, Hill, Carmichael, McConnel, Ward, Kitson and Osler.

Osler's thesis was never published, and only a fragment of it remains—the introduction, couched in rather flowery and figurative language. As it is one of his youthful productions, and his first essay in studies from the pathological laboratory where he was to spend so many years, a paragraph or two may be quoted, misspelling and all :

In that Trinity of being—of body mind and soul—which so marvellously make up the Man, each one has its own special ills and diseases. With the first of these—the body—have we here anything to do, leaving the second to be attended to by that class of men whose duty it is, 'to minister to minds diseased', i. e. the Psychologists, while those of the third class beyond a Physician's skill seek aid elsewhere. Few indeed are permitted to end their days in a natural manner, by a gradual decline of the vital powers, till that point reached, where nutrition failing to supply the fuel, necessary to keep the lamp of life alight, leaves decay to drag back the fabric to the dust. . . . The number of avenues through which death may reach us, the natural frailty of our bodies the delicate and intricate machinery which maintains us in a condition of health may well make us exclaim with the Poet

Strange that a harp of thousand strings
Should keep in tune so long.

To investigate the causes of death, to examine carefully the condition of organs, after such changes have gone on in them as to render existence impossible and to apply such Knowledge to the prevention and treatment of disease, is one of the highest objects of the Physician. . . .

CHAPTER V

1872-4

STUDENT DAYS ABROAD

A voluminous letter from 'Father' Johnson addressed to Osler in Dundas after his graduation, indicates that his departure for a period of study abroad—the natural goal of every newly-fledged Canadian M.D.—was impending. Johnson lamented that he was tied down and would be unable to meet him in Toronto to see about Bovell's microscope,¹ and enclosed 'a copy of Devout Life for your dear Sister God bless and protect her'. Canon Osler could scarcely have afforded to send a son to Europe for the proposed two years' absence, even though the elder children were by this time married and living away from home. But one of his sons came to the rescue, for Edmund, who was engaged to a Scotch lady, a Miss Cochran of Balfour, was on the point of paying a timely visit to his future relations and was glad to have the lively companionship of his younger brother—indeed furnished the \$1,000 necessary to see him through his prolonged stay.

They sailed on one of the Allan Line steamers, on July 3rd, and landing in the north of Ireland visited the Giant's Causeway and the Lakes of Killarney. From there W. O. must have gone on to London, for in a pocket notebook of the period is written: '*William Osler, M.D. London July 1872. Cash Account. Be frugal: pay as you go.*' It seems to have been one of the few periods of his life in which he kept an account of his expenditures, and cab fares and tips and tea are all duly recorded. In later years after beginning his consulting practice he methodically entered all items of his professional income in a small account-book for physicians such as are put out

¹ The Rev. James Bovell Johnson writes that 'when Bovell's personal belongings were sold in Toronto I can remember being with Osler at the sale, and Osler then bought-in certain family treasures for Mrs. Barwick, Bovell's daughter, then living in Toronto'.

each year by some of the various medical publishers.¹ The items, to be sure, for many years were few and far between, but after this first sojourn abroad he apparently kept no record of his outgoings, and was in consequence continually hard up. Like Bovell he responded to every appeal, indeed often before the appeal was made, with a generosity which was apt to be beyond his means. It was not until August that he rejoined his brother in the Highlands, as told in the following letter—one of the few home letters which escaped a subsequent conflagration :

From W. O. to his mother.

Balfour, Aug 14th [1872].

My dear Mother, Up here in this far north region, I had forgotten the distance from Liverpool and so let Canadian mail day pass, this however will reach you via New York. Since I last wrote, I have visited many new places & met many new people. I left London on Thursday evening for Edinboro' by the London & North Western via Carlisle. I was fortunate in having a nice travelling companion and one who knew something of old friends; it was a gentleman from the West Indies who knew Dr. Bovell intimately & had seen him within the last few months. He gave a very nice account of him and his doings which naturally interested me very much. I managed to sleep pretty fairly, though not as I would have in a Pullman. We arrived in Edinboro at 9.30 a.m. on Friday morning, too late to take the through train to Aberdeen so that left me four hours to examine the city. I was much struck with its beauty; it exceeds anything in cities I have yet seen. I found out young Grasett (of Toronto) who is studying medicine at the University, and under his guidance *did* the wards of the Royal Infirmary (the chief hospital of the city) a queer rambling old place, as you may imagine as it was built in the beginning of last century. . . . At Aberdeen I was met by Mr. Alex. Cochran who took me to his house, where I slept that night. In the morning I had a few hours to spy out the 'Granite City'. It is very regularly built, somewhat too uniform but has a delightful cleanliness about it which to a Londoner like myself was very refreshing. I left at noon for Glenninan, Mr. D. R. Smith's place, where Edmund was staying; it is a nice spot & he has recently rebuilt his house, in grand style. Both he and his wife seem very delicate, but probably his trip to Canada with Edmund will do him good. In the evening we went on to Balfour,

¹ These account-books from 1872 to 1919 have all been carefully preserved and Osler had them rebound. He evidently felt that the professional income of a consultant in his position and of his day might some time be a matter of historical interest.

the Cochrans' place, and there received a hearty welcome. The trip up the Deeside as far as Aboyne is very lovely, but up towards Balmoral it is still more so. I will have to postpone the account of my journey to the Aberdeen Highlands as I wish this to catch the Friday mail via New York. We go down to Edinboro again and from thence to Glasgow and the Western Highlands, but more of all this by the Cunard. I hope all are well. Much love.

Yours in haste,
WILLIE.

One incident of the hearty Scotch welcome has been gathered from other sources, indicative of his teetotalism as a young man: for Mrs. Cochran is said to have remarked to her prospective son-in-law that it was sad one so young as his brother should have to refrain. Otherwise there is scant record of this sojourn in the Highlands, which in after years he came to know so well, though in one of his later addresses¹ he refers to the visit in Glasgow where he first met Joseph Coats the pathologist and Sir William Macewen. In another place also² he gave a brief summary of the professional occurrences of the next year or more:

In the summer of 1872 after a short *Rundreise*, Dublin, Glasgow and Edinburgh, I settled at the Physiology Laboratory, University College, with Professor Burdon Sanderson, where I spent about fifteen months working at histology and physiology. At the hospital across the way I saw in full swing the admirable English system, with the ward work done by the student himself the essential feature. I was not a regular student of the hospital, but through the kind introduction of Dr. Burdon Sanderson and of Dr. Charlton Bastian, an old family friend, I had many opportunities of seeing Jenner and Wilson Fox, and my note-books contain many precepts of these model clinicians. From Ringer, Bastian and Tilbury Fox, I learned too, how attractive out-patient teaching could be made. Ringer I always felt missed his generation, and suffered from living in advance of it.

From W. O. to his sister Charlotte (now Mrs. Gwyn). Sept. 24th.

My dear Elizabeth, I dated this letter last night, and had I gone on with it would have given you all a good wiggling, most unjustly, for I thought the Canadian mail had been delivered & there were no letters. However, in the morning on going to the Hospital

¹ 'The Pathological Institute of a General Hospital.' *Glasgow Medical Journal*, Nov. 1911, lxxvi. 321.

² At St. Bartholomew's Hospital, Dec. 1913; cf. 'The Medical Clinic: a Retrospect and a Forecast.' *British Medical Journal*, Jan. 3, 1914.

I received yours of the—I don't know. Why can't you date your letters?—and Jennette's of the 8th Sept. which amply made up for the brevity of yours. The man at the letter box always has such a knowing smirk on his face when he hands me my letters on a Wednesday morning, the looney must think they come from my girl, whoever she may be. I am sure that any one reading yours & Jennette's letters of this morning might suppose that they came from Utah and I was a young Mormon in embryo, so feelingly do each of you allude to two separate girls as *mine*. . . . We have had it wretchedly cold for the last week and several typical London days have been interspersed. I went to the Harrisons' one day last week and after dinner accompanied them to Mr. West's church which is rapidly being repaired after the fire. On Sunday I took a trip out to Putney to dine at Atwell Francis's. I got there early and went to St. John's Church, moderately high and very well filled. The Francis's do not trouble Church much, I do not think it runs in the family. Mrs. Francis is very pleasant and they have a brace of fine boys. I went with Atwell in the afternoon to Kew and pulled down the river in the evening over the course of the Intervarsity boat-race. Next Sunday I shall probably go to the Boyds' [family friends in England who used to send missionary boxes to Bond Head, and one of whom he was subsequently to meet in Oxford days] and take with me your wedding cake as an introduction to the sisters. . . . They had a grand commemoration service at All Saints Lambeth on the Anniversary of the S.P.U.C. (I am afraid those initials are incorrect, it is the Christian Unity Society). I did not go, but regretted it after reading the description. The Williamsons I suppose are just now in the agony of moving as I saw in the Banner that the sale was to take place on the 20th. Edmund by this time has been with you or ought to have been. Love to Mother & all the Rectory folk.

Yours affectionately,

WILLIE.

As is characteristic, he says very little about his own plans for the future, though others are concerned about them, as this letter from the West Indies indicates :

From James Bovell to W. O. The Farm, St. John's, Nevis,
Sept. 27th, 1872.

My dear Boy,—I have no one whom I love better than yourself, and altho' I have been careless in writing it has been caused by my hard work and ever increasing trouble. However I need not burden you with my griefs, which my sisters will tell you of when you call on them. Find them at 193 Hampstead Road, Regents Park, N.W., tell them I asked you to call to introduce you to Stuart. I more than rejoice at your success and if you will only go on as you have been doing the end is clear. I am at a loss what to say about your

settlement. I still cling to the notion of India as I know that no such field for fortune and fame is open to man elsewhere. Canada for some time to come must be limited in resources sufficiently remunerative, whereas India with its teeming population and immense wealth in Native Princes and Merchants affords all a professional man can desire. The Church here is in an awful state, it is being disestablished and disendowed and the negroid life is a very sorry one to work upon. Methodism has eaten Christianity out of them and in place of it they have an emotional system which employs the phrases and language of Christians which is entirely void of life or principle.

I would give anything if Johnson could be induced to come here, there is a vacant Parish, £130 sure for a time and £130 more, easily made up. Of course with a good but *low*-church Bishop we can't have Vestments but I take care to have all I can in order. I have just finished a reredos the centre panel of which has a Cross 18 inches high. The new altar is quite correct and altho' I am not permitted to stand in the middle front, I do for primary consecration stand at the North W. corner, but kneel in front at receiving, and saying the service. I have sent home to my sister a Manuscript of all Hooker has said on the Eucharist. It is now lawful so I think if it was published separately it would do good. He is plain. . . . I will write next Mail,—Post time up.

Yrs. ever

J. BOVELL.

The project of taking up his work in India, where in Bovell's estimation was offered the greatest 'field for fortune and fame', was evidently very seriously considered at this time, and apparently roused some consternation among his relatives and friends at home, for it was not until early in the following year that he wrote to his cousin Jennette to quiet her soul about his India schemes. Whether there was any influence other than the advice of Bovell is not apparent, but the India Medical Service had always attracted a goodly number of the very best of the British medical students, and it was well known that it was a corps with the highest *esprit*, and that the opportunities for work as well as for 'fortune and fame' were great. Many years later in an address before the members of the first graduating class of the newly established Army Medical School in Washington,¹ he said: 'As I write, an inspiration of the past occurs, bringing me, it seems, closer to you than any of the points just mentioned, a recollection of the days

¹ 'The Army Surgeon.' Feb. 28, 1894.

when the desire of my life was to enter the India Medical Service, a dream of youth, dim now and almost forgotten—a dream of “Vishnu land, what Avatar!” But this was a short-lived aspiration, for he appears to have set his heart on a career in ophthalmology. Various reasons must have led him to this decision, and it was undoubtedly a bitter disappointment when the project was finally relinquished. Specialization in medicine was just coming to the fore, and in Montreal as yet there was no one who limited his work to the diseases of the eye. Realizing that in the absence of financial backing, and with existing conditions of medicine in Canada, he would have to enter practice for a living, he decided upon a speciality which would permit him in his spare hours to pursue science rather than to have practice pursue him, as would be the case were he to succeed as a general practitioner. Moreover, he was evidently influenced by the career of the most eminent eye-specialist of the day, who though chiefly identified with the Royal Ophthalmic Hospital at Moorfields, had formerly been Professor of Ophthalmology at King’s College. His deep admiration for Bowman as the type of man who, because of a thorough grounding in science, could subsequently rise high in a speciality, was expressed years later in an address to a body of specialists in another field.¹ But Bowman still retained his enthusiasm for physiology, and he advised the young man, whatever he was to do in the future, to begin by a period of work at University College Hospital² with John Burdon Sanderson. The advice was taken, and a profitable and happy seventeen months was passed in Sanderson’s laboratory. It was a curious trick of fortune that he should have come to work under the man whom thirty-four years later he was destined to succeed as Regius Professor of Medicine at Oxford.

¹ ‘Remarks on Specialism.’ *Archives of Pediatrics*, Phila., 1892, ix. 481.

² University College was born in 1828 of an effort to establish what was to be a non-sectarian University in London, a project which was thwarted by the establishment of a rival institution, King’s College, backed by the Anglican Church, which was jealous of any loss of its hold on national education. In consequence of this split the University of London long remained a name only, and functioned chiefly as an examining board.

Osler's laboratory note-book of the time is preserved,¹ showing that the course began on October 7th with the examination of the inflamed anterior chamber of the eye of a frog and of an inflamed lymph sac experimentally produced, with subsequent microscopical study of the tissues. It was actually a course in what to-day we would call experimental pathology, for physiology and pathology were not divorced as they have since become, to the harm of each and to the considerable neglect of their offspring histology, which concerns the microscopical examination of the tissues in health and disease. The '70's, as may be recalled, saw the dawn of a most important period for medicine, which had awakened with the new learning relating to the microscopical sources of disease following upon the cellular doctrine of Virchow, and leading up to the bacteriological discoveries of Pasteur and Koch, and the adaptation of them by Lister to surgery.

Interesting as it might be, this is no place to do more than hint at the story of the gradual separation of structure and function. Earlier anatomists like the Hunters and their associates of the Windmill Street School were as much concerned with the one as the other. But in a progressive school like that at University College a curious situation arose, there being one Professor of Anatomy and another Professor of Anatomy and Physiology. The subject of anatomy had become little more than a weary descriptive science, and remained so until it was revived in course of time by Professor His and his pupils. Meanwhile its one-time hand-maiden physiology was pressing for a separation, and when this was accomplished the clever child took with her the microscope and the finer study of structure, leaving nothing but the cadaver for anatomy. Thus it came about that histology, in which lay the chief promise of future reward from research, has to this day in English schools been part and parcel of physiology rather than of anatomy.² It was

¹ 'Short Notes on a Course of Practical Physiology by Burdon Sanderson at University College. London, 1872-3.'

² The *Chair in Anatomy* at University College has been held successively by J. R. Bennett, Richard Quain, G. V. Ellis, and G. D. Thane. The *Chair of Anatomy and Physiology* was held first by Jones Quain, then by the famous

into this situation, with its spirit of revival of physiological investigation for which Burdon Sanderson, Michael Foster, Lauder Brunton, and E. Klein were chiefly responsible, that Osler was introduced, and it was one of which his early familiarity with the microscope and his growing taste for experimental pathology particularly qualified him to take advantage. The situation, too, explains in a measure his peculiar fitness, despite his youth, for the position offered him two years later at McGill as Professor of the Institutes of Medicine, then comprising physiology, histology, and pathology. Unless perhaps with Cohnheim in Germany, no more stimulating group could possibly have been found than those who were at work in the '70's in Burdon Sanderson's laboratory. Sanderson's great desire was to make experimental physiology pre-eminent in the teaching, and this part of the work he reserved for himself, while to Edward Schäfer, a young man of Osler's age, was delegated the practical histology, to T. J. M. Page the teaching of physiological chemistry, and to Klein, who had come over from Vienna, was given the histological pathology.

To W. O. from R. Palmer Howard.

Montreal, 25 Oct. 72.

My dear Osler,— . . . You have by this time well settled down to y^r work in the Metropolis, I doubt not, and are picking up much that will be useful to you hereafter. Touching your prospects as

William Sharpey whose pupil and successor was Burdon Sanderson. With this chair there was established a separate *Lectureship of Practical Physiology* which was held in turn by Sharpey's two most distinguished pupils. The first of them, Michael Foster, was captured in 1870 for Trinity College, Cambridge, where he started the modern science movement, Burdon Sanderson having been appointed to succeed him at University College. This lectureship was finally changed into a separate *Chair of Practical Physiology and Histology*, and Sanderson, after succeeding Foster, occupied it until Sharpey's retirement from the Chair of Anatomy and Physiology, at which time the *Jodrell Chair of Physiology* was established to include physiology and histology. The Jodrell Chair has been occupied in succession by Burdon Sanderson, by Edward A. Schäfer, and by E. H. Starling. Burdon Sanderson's withdrawal was in 1882, when he accepted the Waynflete Professorship of Physiology at Oxford. This appointment was the first movement towards the revival of what had been termed 'the lost School of Medicine of Oxford', and it is noteworthy that the proposed grant of £10,000 to build Sanderson a laboratory met with organized opposition on the part of the antivivisection societies—an opposition which was overcome at Convocation by the small margin of 188 to 149 votes.

Oculist, you will have much more to contend with than we ever thought of when we spoke together on the subject. In July or August last Mr. Morgan, resident Surgeon at Moorfields, and formerly in charge of the eye-wards at Netley, wrote to me informing me that he purposed coming to Montreal as an Oculist. We had known each other six years before at Moorfields during a short visit I made at that time. . . . Of course were he to come, it would seriously affect your hopes as to making eye dis. a speciality. As between you and Dr. Buller I may safely say, you would have the countenance and support of your old teachers. But here the plot thickens. . . .

And Howard went on at length to say that there were indeed three candidates in the Montreal field with better chances than Osler, so that his advice would be to abandon ophthalmology and 'to cultivate the whole field of Med. and Surg. paying especial attention to practical physiology', which in his opinion was destined to become one of the most popular departments of medical teaching. He closed by announcing that Dean Campbell had requested him 'to present an order from Dr. Wright upon Nock, the medical bookseller for your books—which you will select yourself and have printed upon them: "Graduation Prize Awarded to William Osler, etc."'. With Howard's letter the rough draft of Osler's reply has been preserved. It says:

. . . As you may imagine I was not a little disappointed at the blighting of my prospects as an ophthalmic surgeon, but I accept the inevitable with a good grace. I spoke to Morgan yesterday and he tells me as follows: that he purposes going out early in the spring stopping until August, when he has to return on business, and then going back if the place suits him. He is a very practical man and one of great experience, so much so that there is no surgeon connected with Moorfields who does not listen with deference to his opinion. He might be younger and in better health, but it is difficult to procure an article absolutely perfect. I now have to look forward to a general practice and I confess to you it is not with the greatest amount of pleasure. I had hoped in an ophthalmic practice to have a considerable amount of time at my disposal, and a fair return in a shorter time, but in a general practice which will be much slower to obtain (if it becomes of any size) what ever time you may have is always liable to be broken in upon. Now Practical Physiology—setting aside anything like original work—and considering merely the teaching, requires much time and will need, to be done properly, some outlay on the part of the College or myself. The upshot of all this is, that I want something definite stated as

regards my future connection with McGill College and I have written the Dean to that effect. It simply will not pay me to go on here spending quite half my time working at a subject [physiology] which may eventually become popular with the students, but the fees from which in Canada will never alone repay either the outlay required to qualify myself or the time spent over it. I am sorry to have to appear so mercenary, but the recollection of my old friend Dr. Bovell, who tried to work at Physiology and Practice both and failed in both, is too green in my memory to allow me to take any other course. My ambition is in time to work up a good Laboratory in connection with the College, and if I get a favourable answer from Dr. Campbell, with that object in view I will continue my Physiological studies after this winter, but if not, I must turn my attention more fully to those branches which will enable me to engage in a general practice most successfully. . . . I am very busy at present in the Laboratory, spending four or five hours in it every day. I commenced as a green hand *ab initio*, in order that I might miss no little details. I have a little private work going on under Dr. Sanderson's superintendence connected with the antagonistic action of Atropin and Physostigmin on the white corpuscles, but whether it will come to anything or not remains to be seen, however in any case the practice is helpful. I purpose after Xmas taking a thorough course in Practical Chemistry on your advice, for of course that is the basis of many Physiological investigations. I get some good P.M.'s at Univ. Coll. and the remarks made by some of the men especially Drs. James Barlow and Ringer are very valuable. I have made a good many useful friends at Moorfields among the Surgeons and as they are nearly all connected with General Hospitals one can go about with less restraint always feeling sure of a personal welcome. Browne and I are together which makes it very pleasant. . . .

He and Arthur Browne shared a room somewhere in Gower Street, and there were a number of other young Canadian students of their acquaintance in London. Zimmerman, who had entered the Toronto school with him, was at St. Thomas's, and Buller, who ere long returned to Montreal, where he took up the practice of ophthalmology and rented an upstairs room to Osler, was now house surgeon at Moorfields. However great may have been Osler's disappointment in regard to his pet project, it was borne in a cheerful spirit, and the preceding exchange of letters indicates that before he left Montreal there must have been some movement on foot to create a position for him in the school. His reply to Palmer Howard evidently was transmitted to Principal Dawson, who shortly after made a new proposal: in effect,

that he was shortly to retire from the Chair of Botany; that a new lectureship was to be created to embrace the faculties both of Medicine and the Arts; that the incumbent should be proficient in structural and economic botany, including the use of the microscope; that botanical science held out a good chance for scientific reputation, though from a pecuniary point of view—well, the fees from the medical classes alone amounted to \$200 and might increase. With Principal Dawson's letter was enclosed one from Dean Campbell, which enlarged on the subject as follows:

The enclosed note from Principal Dawson anticipates much of what I have to state upon the subject. A three months' course of Pathology with the use of the Microscope might be added to the Botany course. It is not compulsory with us, but it is among the requirements of the Medical Council of Ontario, and I have no doubt would be well attended. We have the advantage of now being able to offer you first rate accommodation, probably as good as any in America, but our chairs are not endowed, and the Professor depends upon his class fees for the remuneration, so that you must take your chance as all of us have done, and look chiefly to private practice for a *living*.

We all as a Faculty will be most happy to have you associated with us, and the fact that we entertain such a high opinion of your acquirements and character, as to offer you the Chair of Botany, will give you, a comparative stranger in Montreal, a Great Advantage in commencing practice. I was most thankful in my early career here, to obtain such a connection, with precious little in the way of emolument.

I am not authorized to make any definite offer of a separate Chair of Pathology, at present that branch is included in the Institutes course, and taught by Dr. Drake, who might or might not be willing to confine his instructions exclusively to Physiology, I merely speak of the possibility of such a decision being at some future period considered advisable. You should certainly devote the chief share of your attention to Medicine and Surgery. A young married couple might as reasonably expect to live upon love as a medical man to live upon pure science in this most practical country. Let me know when you have Maturely considered the subject, whether you will accept Principal Dawson's proposal, and qualify yourself to teach Botany in the way in which he points out, or whether we are to look elsewhere for some one to relieve him from that portion of his labours. . . .

This proposal was followed in the next mail by a long and friendly letter from Palmer Howard, who hopes that

he 'will feel the College is doing what it can towards advancing your interests and securing for you some official connexion with the University', and expresses the belief that Principal Dawson might in time turn over to him not only the medical but the arts course in Botany as well, and some day might also entrust him with Zoology. However, the university being poor and needy and in no position to establish lectures in practical physiology at present, he advises his young friend to qualify himself for general practice, and if he would 'spare the time and money to run up to Edinbro. for the F.R.C.S.—which will cost only £5, and coming back here it will do you no harm to have a diploma from the "Old Country" although not intrinsically worth more than if fairly obtained here.'

Osler's replies were frank and straightforward refusals of the offer, on the grounds of his absolute unfitness for the position. The rough drafts of his answers to all three of these letters have been preserved; it may suffice to quote one of them:

My dear Dr. Howard, I have written to Dr. Dawson refusing the kind offer made me of the lectureship in Botany. I am afraid you will not be pleased at it, but I really can not do otherwise. If I knew anything of Botany at present; if I had nothing else left to do for two or three years it might be thought of; but as matters stand now I would only make a fool of myself in accepting such a position. I would feel far too keenly the anomalous situation of holding a chair in Botany & knowing absolutely nothing of the Flora of my native land. I am afraid the offer was made more from personal feelings than any fitness for the Post. I can assure you I appreciate highly the compliment paid me & consider that McGill has more than fulfilled any obligation she may have considered herself under. I hope nothing was said about it for I should not like it to come to the ears of my people, they would be vexed at me, not knowing the ins & outs of the case. I continue my work at U. C. Laboratory & am satisfied so far with my progress....

It was unquestionably the right decision, though the offer was one that might easily have tempted a young man of twenty-three who knew his mind less well. This exchange of letters has been a chance finding: Osler himself, so far as is known, never referred to the matter again. It is a somewhat curious coincidence that this, his first offer,

was a post in Botany, and that almost the last position he accepted, though an honorary one, was the Presidency of the Botanical Society of the British Isles.

To his sister Mrs. Gwyn from W. O.

December [1872].

My dear Chattie, Though I wrote you last week I cannot help writing again and wishing you—though late—‘Many happy returns of the day’. Also it will be Christmas time when you get this; and it is but brotherly to write and wish you at this the first Christmas of your married life, both a happy one and a merry New Year. There goes. I have reversed matters but you must overlook all mistakes as I have a host of letters this week, one of which already written, you will blow me up for. The Canadian mail is very late this week, but we must expect that as the winter comes on. Nothing much has been going on. I am very busy but shall slacken a little at Christmas.

Wednesday. I had intended on Sunday to go up and see the Pellatts, but Canon Liddon was preaching at St. Pauls and I could not resist the temptation of hearing him again. He is very long (i. e. his sermons), nearly an hour; we did not get out till after five o'clock. I went to All Saints both morning and evening. As I came up from church in the morning I went into a very dour looking edifice about five minutes walk from our lodgings and to my surprise I found it another High Church. I could not see any name to it, but I will find out and go there occasionally. Christ Church, Albany Street which is almost within a stones throw, is not nearly so high, no vestments, incense or the like, but I do not want to become enamoured of those as I will not get them in Montreal nor can I quite forego the notion that they are not at all orthodox. [Johnson and Bovell to the contrary.] To-day has been glorious, blue sky and no rain. Canadian steamer is telegraphed so that letters will be at the Hospital in the morning after reading which I may add a postscript. Much love. Got your letter this morning.

Yours,

WILLIE.

Meanwhile very little is said of the work which has been going on since October 7th over the microscope in Burdon Sanderson's laboratory, or who were his fellow-workers, though for a time Francis Darwin had a table near by, and several times spoke of taking him for a week-end at ‘Down’, but did not do so as his father was not well. A letter from ‘Down’ to W. A. Johnson, telling him of such a meeting in the old home of the Johnsons, would have been interesting, to say the least. Sanderson's course ended on January 24th

with an exercise on the physiology of secretion, and Osler's last note reads :

On the propriety of using the lower animals for the purpose of experimentation Dr. Sanderson said 1st, we are at liberty to use them on the same ground as we do for food : 2nd for scientific investigation are justified in giving pain : 3rd for mere demonstration we are not justified in giving pain. Hence all experiments are omitted which cannot be performed on anaesthetized animals.¹

To W. O. from W. A. Johnson.

The Parsonage, Weston,
Jany 9th 1873.

My dear Osler,—Yours of the 8th Ult^o is at hand, & it is the third you have very kindly and thoughtfully written without an answer from me. . . . Reasoning on general principles, no doubt your friend Dr Howard's advice to devote yourself to general medicine is good. I can not be expected to even offer an opinion on a thing I know nothing of. . . . I think I was turned from Botany as a specialty early in life, by some old medical man who lived near those steps wh^h go down from Oxford Street by his saying, 'don't you think of a specialty until you are forty', or some such words. I really must not write so much on a thing I know nothing about. Is it likely that the faculty of McGill College can afford to answer you distinctly in writing, concerning your future position with them? I do not see how they can, because you would have a claim upon them. Perhaps they will; but if they do, they surely rate you very high. It is quite likely they will extend the offer, but not definitely, & it will be for you to consider what it may lead to eventually; provided there is a reasonable remuneration for the present. If you are obtaining a present remuneration (i. e.) if you are in a position where you are regularly paid, though it be only a small amount, look well before you leave it for future increased salary, or something indefinite; for one bird in the hand is better than two in the bush. I am very glad you got comfortably settled in London. I envy you your Church privileges. Do not be afraid to use them freely & lovingly. Many Churches in London, from what I hear & read must be doing a good work. I suppose many of them freely & openly admit every sensible usage of the Roman Churches without any reference to papal authority, or to the errors wh^h have grown up from it. It is just what I could enjoy, &

¹ In the early '70's, as may be recalled, the antivivisection controversy in which Huxley was so actively engaged as protagonist for the scientists, was the subject of much discussion. It, however, was not until 1876 that in spite of the protests by Huxley, Darwin, Burdon Sanderson and others, the drastic act was passed which has so hampered medical research in the British Isles.

seems to me right. A return to the old paths. Tell me all you can about these matters when you write, but remember dear fellow I do not expect a letter. . . .

This very long letter contained a deal of excellent advice, which need not be quoted save for one question Johnson asked : ' May you not lessen your usefulness and knowledge in passing by general information to pursue a specialty ? ' This, too, had been Howard's suggestion, and accordingly the next ten months were given over very largely to ' walking the hospitals ' in the old signification of the term ; and in doing so he was particularly impressed by Murchison at St. Thomas's, and by the clinics given by Sir William Jenner and Wilson Fox¹ at University College. There he also followed Ringer, as well as H. C. Bastian, who lectured on nervous diseases though he was chiefly engrossed at the time by his theories regarding spontaneous generation. Early in the year he took a course of lectures on embryology given by E. Klein at the Brown Institution, and must have been interested, for ' *James Bovell, M.D., M.R.C.P.* ' appears only once on the pages of a full note-book ; and at this time he evidently started some experiments on the blood of guinea-pigs, which, however, do not seem to have come to much. He even attended surgical operations, for Browne, his room-mate, who regularly sent medical letters home for publication in the journals, acknowledges his indebtedness to Dr. Osler for notes of surgical cases at the University Hospital, where Mr. Erichsen was then in attendance. The two friends during this time had been making a desperate struggle to master German, but one of them at least had little gift for speech in foreign tongues, possibly

¹ Wilson Fox was not well at the time, and when he died some years later Osler wrote : ' When I look back, through the mist, to 1872-3 and try to recall specific days and hours, there are few which will return with greater distinctness than those in which I see Wilson Fox standing at the head of a bed at University College Hospital, unravelling for the class the complicated symptoms of some chest case. He had a refinement and charm of manner particularly attractive. Something of the gentle spirit of the great Friend, whose name he bore, and into whose Society he was born, pervaded his nature, and there was a kindness in his manner which won the hearts alike of student and of patient.' [In 'Notes and Comments', *Canada Medical and Surgical Journal*, June 1887, xv. 702-3.]

owing to his unmusical ear. They evidently got greater satisfaction out of their general reading, and to his 'much-loved Arthur Browne', himself devoted to English literature, Osler ascribes his introduction to Lamb and Coleridge. Together they must have begun to frequent the antiquarian book-stands; and as Osler had the prize money for his treatise, in the shape of an order for books on S. & J. Nock of Hart Street, Bloomsbury, he proceeded there, and in after years recalled the place as 'an indescribable clutter of books, whereas the brothers Nock, far advanced in years, were weird and desiccated specimens of humanity'.

To Miss Jennette Osler from W. O.

January 16th 1873.

. . . I hope they have sent down my last two or three letters as they tell of my Xmas visit in Norfolk.¹ I spent a very happy ten days in spite of a rather severe cold which kept me in doors for nearly a week. I did not get to church on Xmas day even; I was going to say for the first time in my life, but probably my first two Xmas days were spent in a very similar manner, eating & sleeping forming the chief part. Books, Music and cats are the chief features in Witton vicarage. The former I read, the second I listened to, & tried to understand, while the third I teased unmercifully. The girls are accomplished, good musicians, &c., but are lacking in looks which in spite of all else are very requisite. At Norwich I visited the Cathedral & saw what I could of the relics of my favourite Sir T. Browne. His skull & a good painting were in the Infirmary; his tomb in the church of St. Peter Mancroft. I could not resist the temptation of seeing Ely and so stopped there on my way up. It is a wonderful building, the restoration making it look almost perfect. I was there for the morning service, forming in fact with a couple of kids, the congregation. I am very sure that after a months residence in this moist Isle you would pine for the land of your adoption. It only needs the 'fountains of the great deep' to break up and then in many parts the deluge would be complete. For a few days the rain has ceased, but the clouds only permit an occasional gleam of sunlight. . . . I went to Drury Lane the other evening & saw the Xmas Pantomime. It was very grand & nice but oh! so long. I left long before it was over. Napoleon's death has caused such a sensation; he was buried yesterday. I will try & get a paper with full particulars in it though of course the news will be stale enough by the time you get this letter. You may quiet your soul about my India schemes. I shall *not* go there. Canada's my destination. . . . Kisses to all the kids. Yours

WILLIE.

¹ To visit relatives of his new brother-in-law, Colonel Gwyn.

This sojourn on the East Coast gave him his first opportunity to visit Norwich, and while there he was much moved by the sight of Sir Thomas Browne's skull, which many years afterwards he was instrumental in having placed in a proper receptacle. In a later address he thus refers to this visit :

The tender sympathy with the poor relics of humanity which Browne expresses so beautifully in these two meditations ['Urn Burial' and 'A Letter to a Friend'] has not been meted to his own. 'Who knows the fate of his bones or how often he is to be buried?' he asks. In 1840, while workmen were repairing the chancel of St. Peter Mancroft, the coffin of Sir Thomas was accidentally opened, and one of the workmen took the skull, which afterwards came into the possession of Dr. Edward Lubbock, who deposited it in the Museum of the Norfolk and Norwich Infirmary. When I first saw it there in 1872 there was on it a printed slip with these lines from the 'Hydriotaphia': 'To be knaved out of our graves, to have our skulls made drinking-bowls, and our bones turned into pipes, to delight and sport our enemies, are tragical abominations escaped in burning burials.'¹

He must have written promptly to W. A. Johnson, who replied on February 5th, saying :

... I would have liked to have been beside you while examining what remains of old Sir Thos. Browne. How markedly England does differ in that particular from this Country. Though we could put the whole Island into one of our Lakes yet there is more local interest in any one parish than there is in the whole of our Dominion. Say what people will about pictures, emblems, relics & the like, they have ever been and ever will be the most delightful & I think reasonable means of raising the thoughts to higher & holier hopes. The more I use them the more I delight in them. Word painting according to some eminent men in England is all that is needed but I think they must mean '*needed*' for wiser heads than mine. These things do help meditation so much, even if they do not actually create it. For instance, how difficult it is to *recall* the warmth of feelings we experience when actually in sight of relics connected with great names or events. Such I suppose is the legitimate use of the crucifix. It certainly is a lively incentive to meditation & a wonderful help to it. We protestants do not know half enough of these things, or how to use them.

From W. O. to his mother.

February 12th [1873].

My dear Mother, Last weeks letter sent to you 'did not count', it was but a scrap; so that this one goes to you by proper turn.

¹ The '*Religio Medici*'. An address delivered at Guy's Hospital, London, Chiswick Press, 1906, 31 pp. 8vo.

A mail arrived to-day with one letter from Chattie of Jan. 3rd & some papers. . . . I finished the afternoon by going to the Misses Bovell and had a long chat with them about West Indian friends. They hear from the Doctor very regularly and report him very busy, having three Parishes to attend and four Sunday Services. I did intend to go out to Putney on Sunday to see the Atwell Francis's but it was such a dreary bleak day that I postponed it, Browne and I spending a quiet Sunday together. I went to Christ Church and after dinner took a long walk around Primrose Hill returning through the Park. The snow has quite disappeared but an occasional flurry with a lowering of the Thermometer remind me that it is winter time. London is much agitated just now over the coal question, the prices having got up last week to 53s. per ton & a still further advance is talked of. As we only have our fire in the morning and evening it does not fall so heavily but what the poor will do if the weather gets much colder it is difficult to say. To-day has been remarkably clear and fine and as it was one of my days at the Brown Institution, I enjoyed the bright view—not often seen—on the river; going up on one of the Boats. . . . I send the 'John Bull' of this week to the Pater. Ask him to pass it on to J. Babington. I got it thinking it would contain a full account of the Athanasian Creed defence meeting, but you will see all about that in last week's Guardian. I am glad you have a 'slavey' that promises well; Even in England they are not immaculate judging from the complaints one hears. . . .

Your most affectionate Son

WILLIE.

So the winter passed, by no means always with 'clear and fine' days, for he wrote to his sister a few weeks later: 'My cold is much better but I cannot dispense with "wipes" yet. We have had three or four days of cold yellow fog, not very thick, but horribly stuffy and it penetrates into all the rooms, chilling ones vitals'; and he adds in a postscript: 'I send B. B. a "Telegraph" with Gladstones speech in it. Tell him to excuse the dirty condition but I rescued it from the pile which the slavey collects to light fires', &c.

A paper on the results of some experimental studies undertaken earlier in the winter was read, as he later confessed, 'in a state of Falstaffian dissolution and thaw', on May 16th before the Royal Microscopical Society, and subsequently reported and published in its journal.¹ It

¹ 'On the Action of Certain Reagents—Atropia, Physostigma, and Curare—on the Colourless Blood-corpuscles.' *Quarterly Journal of the Microscopical Society*, 1873, xiii. 307.

represented an effort to determine whether the antagonism between atropin and physostigmin could be demonstrated by the behaviour of colourless corpuscles under the microscope; and though the findings were negative they served to arouse an interest in studies of the blood, which was to bring results later on. Incidentally the paper led to his election as a member of the Society. His laboratory notebook indicates that in June he had started on a new quest, for beginning with the date 14/6/73 the entries are accompanied by drawings labelled 'Colourless elements of my blood'. In the course of this investigation he very soon ran across some peculiar globoid bodies which he attempted to illustrate, and on certain days he found them 'very plentiful'.

10/6/73. After fasting 15 hours examined 3 preparations of my blood. Granular white corpuscles were found; 2 in two of the slides, none in the third. Fig. 5 represents the appearance of one which looks degenerated.

The blood of other people in the laboratory was also examined, and of various animals—modified by feeding, by fasting, &c. :

On the 21st from Mr. Schäfer's blood one or two masses like Fig. 1 above seen [sketch]. The mass under observation on a warm stage was at first rounded in outline and distinctly corpuscular. Within two hours it had become more irregular in shape, while about it were several bacteria in active movement; connected with it were small filaments. Unfortunately as a higher power was being adapted it was lost.

He continued to describe and picture what he thought to be bacteria developing from these masses; and later on many patients were examined—cases of Addison's disease, malaria, diabetes—and he succeeded in demonstrating the masses he had discovered in many different conditions. These studies occupied his time from June to October, and this summer's work was the basis of his first and possibly his most important contribution to knowledge. Though a few previous investigators had observed these bodies, which came to be called blood platelets, or the third element of the blood, and which play an important rôle in the phenomenon of clotting, they had never before been



These figures are all that remain of a research
 which cost several months work - an attempt
 to determine on the leucocytes the autogenous
 action of atropia and physostigmin, an article
 on which - the general autogenous - has recently
 appeared by Tannas Fraser. It did not come
 to very much, but the first paper I read was
 before the Medical Microscopical Society in May
 1874 (in a state I remember of Fabry's "dis-
 solution & thaw") There is a note upon it in
 the *Quarterly J. Micro. Science*. The
 various hyaline processes which burst out by
 the leucocytes ~~are~~ here figured represent
 probably physical effects. It was while working
 on this subject that my attention was called to
 the Schultze's granules, masses & the blood platelets.
 W.D.

so thoroughly studied, and none of his predecessors had actually seen them in the circulating blood. The observations, which had been conducted with great originality and been carefully described, were assembled the next spring on his return from the Continent, when Sanderson presented them before the Royal Society. News of this discovery must have reached Montreal, for in his introductory lecture on the opening of McGill in October, Palmer Howard spoke as follows in the course of his address :

In connection with this new subject of scientific interest, the older students present, as well as my colleagues, will be pleased to hear that Dr. Osler, who graduated here in 1872, has just made a discovery of great interest, and that promises well for the future of our young countryman. . . . I wish that some friend of this University would endow a Chair of Physiological and Pathological Histology, and that our young friend might be invited to accept the appointment and devote himself solely to the cultivation of his favourite subject, and at the same time bring honour to himself and to Canada.¹

Before leaving England for the Continent, Osler evidently struggled over the preparation of a letter to one of the Canadian medical journals, a rough draft of which is preserved. It contains an apology for not having followed the example set by Arthur Browne in sending a monthly letter, and ends with an expostulation regarding the waste of time and money spent by most of his young countrymen in 'grinding' to pass the English qualification examinations : these he calls neither degrees nor honours, and advises young Canadians to devote themselves to hospital work rather than to waste their substance in this way. This has a familiar sound to those who know of his later feelings regarding these examinations. Despite these unpublished expostulations, he nevertheless succumbed to the usual custom and not only became a Licentiate of the College in this year, but in 1878 took the examination for and was given his M.R.C.P.

To his sister, Mrs. Gwyn, from W. O. October 8th [1873].

My dear Chattie, How good I am to you—so undeserving—is evidenced by the enclosed. It differs from the Mothers so if she likes yours best—(which I dont) give it her. Folks here think it good

¹ *Canada Medical and Surgical Journal* 1873-4, ii. 208.

but it is too stern to please me. I bid goodbye to London next Wednesday. Address me till you hear further 'Poste Restante, Königs Strasse, Berlin'. I dare say there will often be slight irregularities but I will write some one weekly. I took your boys Photo down to the Boyds last week. They did make a row over it. The servants had it in the Kitchen & all decided it was like its dear Grandfather [Osler]. Thats one on the Governor—wont he be flattered. By this time Edmund has I hope arrived & you have got that Service book at last. I dine at the Sheppards tomorrow—have my hands full in that line for the week. Tell Jennette she shall have the first Berlin letter or Hamburg probably as I shall be there on the mail day, though it is not unlikely I may miss next weeks post, but I will try not to. I am rather sorry to say goodbye to London; it is not a bad place to spend a year in & have picked up a wrinkle or two which will I trust be useful. With benedictions, Yours

WILLIE.

Berlin

In a fragment of what appears to be a journalesque home-letter written during his early days in Berlin, he states: 'The politeness here is overwhelming, they bow you in and out and seem in agony till you are seated, while in meeting hats come wholly off. In rising from a table a man will stand and make a bow to every individual he has addressed and even to a perfect stranger if he has been alone in a room with him. It looks well and I like to see it'—and he goes on to tell of his old landlady, and getting settled, and the picture-galleries, and a visit to Charlottenburg on a Sunday afternoon. It became his established habit in later years to send, for the home consumption of his fellows, an open letter to the editor of some medical journal, wherein his impressions of the foreign clinics he visited were picturesquely jotted down. And though dissatisfied with his effort to compose a letter from London, he managed to write one from Berlin dated November 9th¹ in which he gives an account of the men he had seen in the clinics and elsewhere, and of the life which he and Stephen Mackenzie, his new friend, were leading. He comments also on matters of domestic economy which struck him as strange, particularly the breakfasts, and the beds—'wretched agglomeration of feathers—no sheets, no blankets, no

¹ *Canada Medical and Surgical Journal*, 1873-4, ii. 231.

quilts—but two feather beds, between which you must sleep and stew, but I am now reconciled’.

From W. O. to his sister, Mrs. Gwyn. 44 Louisen Str. N. [Berlin],
November 23rd, 1873.

My dear Chattie, Your letter of last week was very acceptable, for home news still comes in a jerky, erratic manner very different to the regularity of the mail in London. Dont address any more letters to Berlin but to the ‘Allgemeines Krankenhaus’, Vienna, indeed I should have told you before, for I go on there about the end of next month. This ought to reach you about the 10th of December, just too late to offer ‘many happy returns of the day’. How old we are getting! Even I am nearly a quarter of a century old and not on my own legs yet. . . . Thanks for the offer of hair but I prefer to cut locks for myself—from heads, also, of my own choosing. Talking about hair, it is a pity you cannot see my progressing imperial, with which I look like a cross between a Frenchman & an American. I am usually taken for the former, and to my disgust get ‘Monsieured’ or else asked interrogatively ‘französisch?’ and when I answer ‘englisch’ I can see it sometimes shakes the faith of an individual in his notions of national physiognomy. My friend Mackenzie is one of those red faced, stout, sandy-haired Englishmen whom no one could mistake, so that we are rather a contrast. In other respects also we are opposites, for he is an out and out Radical in Politics, Religion, & every thing else so that we are constantly at logger heads. However he is a hard working chap and we have but little time to dispute about our differences & get on very well together, with the exception of a rub now & then. Three Edinburgh graduates turned up, nice fellows, but we do not see much of them. The weather has been unpleasant for the past week & yesterday we had our first snowstorm, which lasted all morning, while to-day—Sunday—it has rained incessantly. On Thursday night I had a great treat in the way of Music, & I suppose it would have been a still greater one if I had had a more educated ear. It was at one of a series of nine concerts given annually by the Emperor’s Orchestra in the Royal Concert room of the Opera house. I went with my friend Dr. Gutterböck who had tickets for the series. There were over a hundred performers all of whom are paid by the old Kaiser and many among them are well known composers. The Music was strictly classical, Beethoven & the like, somewhat over my head but very grand. I was as much interested in the people as anything for the elite of Berlin chiefly composed the audience. Dr. G. pointed out most of the swells all with outlandish names, with which I will not trouble you. Undoubtedly the women are far from good looking yet trim & neat withal. Why don’t you girls do your back hair in a Christian style? it looks so much better plainly braided without all

that horsehair padding, &c. The old ladies were even worse in point of features than their daughters. Four within my immediate ken could with a slight alteration in dress have sat for 'Sairy Gamp'. The audience was evidently a most appreciative one and knew what good Music was. I varied my programme this morning by going to the American chapel, where they have not any fixed person to officiate but depend on chance for some one. It is a dissenting service, not at all bad of its kind, and the young man—a theological student—who preached was an improvement on our steady-going old black-gownier at the English chapel. The congregation was not very large but thoroughly American. Usually on a Sunday we dine out as it were, i. e. we do not go to our accustomed place, but to some Restaurant in the Linden and then adjourn to some Conditorei to see the Papers. Our favourite one is Spalangani's, but it is so much frequented by Englishmen that it is often difficult to obtain a paper. I take my news 'weekly', generally through the illustrated. . . . My old woman has just been in and on a Sunday night usually gets very communicative, entering fully into family history, &c. Her Mother was the chief theme this evening and she seemed very proud to be one of fifteen children which that remarkable woman presented to her unhappy Fritz—she laid particular stress on this point—with praiseworthy regularity. . . .

25th. Have you heard or seen anything lately of Mr. Johnson? You should pay him a visit and take the lad along. . . . Dont let your heart be troubled about German Theology. I dont want it, though some of it may be good enough, even if a little unorthodox. My hands are full without anything else outside ordinary Medical subjects.

Love to all

Yours, &c.

WILLIE.

Another long letter was sent off at this time,¹ evidently written before the sanitary reforms instituted by Virchow came to transform Berlin:

Berlin, Nov. 25th [1873].

Nature could hardly do less for a place than she has done for this. A barren, sandy plain surrounding it on all sides without a vestige of anything that might be called a hill; and the muddy, sluggish Spree, just deep enough to float barges, flowing through it towards the Baltic, form the sole natural features. Being a modern city it is well laid out, with wide but wretchedly paved streets; while the houses, though of brick, are stucco-covered and uniform, so that the general appearance of the place is clean. Unfortunately the cleanliness goes no farther than looks, being the very opposite in reality. The drainage is everywhere deficient, and in the greater part of the

¹ To the *Canada Medical and Surgical Journal*, 1873-4, ii. 308.

city the sewers are not even covered but skirt the pavement on each side, sending up a constant odour, which until one gets acclimatized is peculiarly disgusting. The Berlineses have, however, at last roused themselves, and the council has voted two millions sterling for sanitary purposes, so that a striking reduction in the present high death-rate from Typhoid and kindred diseases may be shortly expected.

It would be superfluous to speak of the advantages here offered for medical studies, the name of Virchow, Traube, and Frerichs in medicine and pathology; of Langenbeck and Bardeleben in surgery, of DuBois-Reymond and Helmholtz in Physiology and Physics are sufficient guarantees; all of these men, who though they have been prominent figures in the medical world for a long time, are still in their prime as teachers and workers. In contrast to London, where the teaching is spread over some twelve schools, it is here centralized and confined to the Royal Charité,—for though there are several smaller hospitals in the city, yet they have no schools in connection with them, but are used chiefly for training nurses. . . . There are only three or four Americans here, and the same number of Englishmen. They go chiefly to Vienna, where greater advantages are offered in all the specialties. The native students seem a hard-working set, much given to long hair and slouched hats, and a remarkable number of them wear glasses. They possess the virtue, quite unknown as far as my experience goes, among their English or Canadian brethren, of remaining quiet while waiting for a lecture, or in the operating-theatre. There is never the slightest disturbance, though most of the lecturers give what is called 'The Academical quarter', that is they do not begin till fifteen minutes past the appointed hour. At Langenbeck's Clinique only, are students allowed to smoke, and often by the time a patient is brought in the condition of the atmosphere is such that as you look across the large theatre from the top, the men on the opposite side are seen through a blue haze. Quite a number of the students, more than I expected, are badly marked with sword-cuts received in duels. One hopeful young Spanish-American of my acquaintance has one half of his face—they are usually on the left half—laid out in the most irregular manner, the cicatrices running in all directions, enclosing areas of all shapes—the relics of fourteen duels! The custom has decreased very much of late, and is now confined to a few of the smaller university towns. A great diminution has taken place in the attendance here within the last few years, and I am told it is greater than ever this session, due to the increased cost of living. Speaking from a six weeks' experience, I find it quite as dear as London. Field-sports, such as cricket and football are entirely unknown among the students; but they have a curious habit of forming small societies of ten or twelve, who have a room at some restaurant where they meet to

drink beer, smoke, and discuss various topics. If tobacco and beer have such a deteriorating effect on mind and body, as some of our advanced teetotallers affirm, we ought to see signs of it here; but the sturdy Teuton, judging from the events of the past few years has not degenerated physically, at any rate, while intellectually he is still to the fore in most scientific subjects; whether, however, in spite of—or with the aid of—the ‘fragrant weed’ and the ‘flowing bowl’ could hardly be decided. Drunkenness is not common, at least not obtrusively so, but they appear to get a fair number of cases of delirium tremens in the Charité. . . .

From this he went on to describe in what way the method of clinical instruction differed from the English and Scotch schools, and the methods of those two great teachers, Traube and Frerichs, particularly appealed to him:

But it is the master mind of Virchow, and the splendid Pathological Institute which rises like a branch hospital in the grounds of the Charité, that specially attract foreign students to Berlin. This most remarkable man is yet in his prime, (52 years of age), and the small, wiry, active figure, looks good for another twenty years of hard work; when one knows that in addition to the work at the Institute, given below, he is an ardent politician, evidently the leader of the Prussian Opposition, and a member on whom a large share of the work of the budget falls; an active citizen, member of the Council, and the moving spirit in the new canalization or sewerage system; an enthusiastic anthropologist as well as a working member in several smaller affairs, some idea may be formed of the comprehensive intellect and untiring energy of the man. On Monday, Wednesday and Friday from 8.30 to 11 he holds his demonstrative course on pathology, the other mornings of the week the course on pathological histology, while on the fourth day at one o'clock he lectures on general pathology. Virchow himself performs a post-mortem on Monday morning, making it with such care and minuteness that three or four hours may elapse before it is finished. The very first morning of my attendance he spent exactly half an hour in the description of the skull-cap!

On Wednesday and Saturday the demonstrations take place in a large lecture-room accommodating about 140 students, and with the tables so arranged that microscopes can circulate continuously on a small tramway let into them. Generally the material from 10 to 12 post-mortems is demonstrated, the lecturer taking up any special group and enlarging on it with the aid of sketches on the blackboard, and microscopical specimens, while the organs are passed round on wooden platters for inspection. A well provided laboratory for physiological and pathological chemistry also exists as well as rooms where men may carry on private investigations; and a library

and reading-room is now being fitted up. A description of some of the other classes and things of interest must be reserved for another time.

The contents of this long letter were built up from the careful notes kept in a *Tages-Kalender* with such care as his difficulties with the language permitted: but his detailed notes of what he was seeing of the clinics and above all of Virchow's painstaking autopsies, were to stand him in great stead on his return. Later on, this same *Tages-Kalender* contains some daily entries regarding a brief illness which sounds like influenza, the last of which reads: 'Dec. 13, Saturday. Much better, up most of the day, ate a good dinner; finished "Adam Bede". Evening no headache nor any pains but felt a little weak.'

Throughout his life Osler always took sufficient interest in his own maladies to make notes upon them, usually entered in his account-books, and, what is more, always took advantage of being laid up in bed to surround himself with books and to catch up on outside reading. It was in this way that he came invariably to 'enjoy' one of his recurring attacks of bronchitis in later years. The last of the Berlin entries was made on December 18th, but the subsequent pages of the *Kalender* contain many quotations from books he had been reading—from Tyndall, from Poincaré, from 'The Two Gentlemen of Verona', &c.

On the 24th of this same December there died in Baltimore a wealthy merchant, Johns Hopkins, who bequeathed his property 'to foster higher education'. Little did the young student, just completing a short three-months' sojourn in Berlin, realize the part he was to play, sixteen years later, in the establishment of a medical department provided for under this great foundation.

Vienna

Such daily entries as any young man of good intentions, in a foreign country and with a new note-book in his pocket, might undertake to write and soon abandon, appear in a *Geschäfts-Taschenbuch* for 1874:

January 1. Arrived at Vienna last night, put up at Hotel Hammerand, explored the city in the morning and in the afternoon.

With Schlofer's aid went in search of lodging-house, deciding finally on a room at Herr von Schultenkopf, No. 5 Reitergasse, Josefstadt, Thur. xiii.

January 2, Fr. Continued the survey of the city. Saw St. Stephen's Church and the chief business localities. Visited the Allgemeines Krankenhaus with Schlofer and tried to get some idea of its topography—rather difficult matter.

January 3. Visited the Krankenhaus again and made further exploration in the city.

4th, Sunday. Tried to find the English Church, but failed. Spent the rest of the day with Schlofer and his friend Herr B.

5th, Monday. Went to meet Hutchinson at the Nordwestbahnhof. Had the felicity of going to 5 of the 7 stations in the city in search of his trunk.

6th, Tuesday. Went to the Krankenhaus and afterwards walked round the Ring.

7th, Wednesday. Commenced work with Bamberger at 8.30. Neumann at 10. Wiederhoffer at 11, and Braun from 12 to 2. Much pleased with this my first introduction to Vienna teachers and material.

For the five months in Vienna he must have worked assiduously and have filled up his time with all the courses he could squeeze in, as the following account he sends home to the Canadian journal¹ makes evident:

March 1st, 1874.

'Allgemeines Krankenhaus'.

... I left Berlin on the 29th of December, and stopped at Dresden for a few days, to see the galleries there, which pleased me very much, and then continuing my journey I arrived here on New Year's day. With the aid of a Yankee friend, I soon obtained a room in Reitergasse, close to the Krankenhaus. The Krankenhaus is arranged in nine courts, occupying a whole district in the city, and accommodating more than two thousand patients. We were not long in getting to work, and our daily programme is as follows:

At about half-past eight we go to Hebra, who visits his wards at this hour, and at nine we go to his lecture-room. Undoubtedly he is *the* lecturer of the Vienna School, and he combines the humorous and instructive in a delightful way. I generally go every other morning to Bamberger, who lectures at the same hour, on General Medicine. He is a splendid diagnostician, but is, I think, inferior to those Berlin giants, Traube and Frerichs. At ten we have another hour on the skin, from Neumann who has the run of Hebra's wards, and an out-patient department of his own. He enters more par-

¹ The Canada Medical and Surgical Journal, 1873-4, ii. 451.

ticularly into individual cases than Hebra and gives us more differential diagnosis. At eleven, we go to Wiederhoffer the professor in the children's department, and have there in the first half-hour a series of selected cases, and in the second a lecture. There are not many in his class, so that one has a good chance to examine the children oneself. At twelve I attend a course on ear diseases with Politzer, not that I am going to make a specialty of them but I thought it well worth while, when an opportunity occurred, to make their acquaintance. Politzer is good, and shows us a great many cases, and makes us pass the Eustachian Catheter daily. At one, Braun the Professor of Obstetrics, lectures, but more of the Clinique shortly. Between two and four we dine, and take our constitutional, and at four we have a class on the laryngoscope. This is a six weeks' course, and I am just beginning another and take kindly to the larynx. At five we have one of our very best classes, viz: obstetric operations, with Bandl, Braun's first assistant, in which after as much theory as is needful, work begins on the cadaver. I begin next week to go on duty about every fifth or sixth day and hope to get three or four forceps cases before leaving. Altogether, midwifery and skin diseases are the specialties in Vienna, while in general medicine and pathology it is infinitely below Berlin. . . .

After having seen Virchow it is absolutely painful to attend post-mortems here, they are performed in so slovenly a manner, and so little use is made of the material. Professor Rokitansky lectures at twelve, but usually to less than a dozen men. Most of the six or eight weeks' courses, for which the school is so famous, are £2, but the ordinary university ones only £1, so that it quickly mounts up, especially if one takes second courses. I do not attend any surgical classes, having as you see my hands full, but we go to Billroth occasionally, and I shall take a course of operations from his assistant before I leave.

Americans swarm here, there are fifty or sixty of them at least, and Great Britain is represented by five or six Edinburgh men and a couple of Londoners. The city itself is very beautiful, having a splendid wide street, like the Thames embankment, surrounding the inner town, and occupying the position of the old wall and moat. I expect to leave about the end of April, and shall touch at Paris on my way home, to see the city. . .

And he went on to give a long account of a seventieth-birthday celebration in honour of Carl Rokitansky, which 'the city, university and students all combined to celebrate in true German fashion and in a manner worthy of themselves and of the distinguished man who has so long shed lustre on their school'.

Osler was evidently aiming to get the broadest possible

grounding in general medicine and the specialties. He even took sufficient interest in obstetrics to translate an article—possibly also to improve his German—from Virchow's *Archiv*, which was sent home to Fenwick for the Montreal Journal.¹ His chief interest, nevertheless, lay in pathology, and despite the proverbial wealth of material, perhaps because of it, he found Vienna to be behind Berlin. Carl Rokitansky, at his best merely a descriptive pathologist, was at this time near the end of his career, and indeed the group of other Bohemians, the great masters who had made the 'new Vienna School' and turned the eyes of the medical world towards Austria, had most of them, with the exception of Billroth, been born in the first decade of the century. The Berlin School, with Virchow as its chief figure, represented a group fifteen years younger.

He had scant funds at his disposal, and in one of his notes written years later, Osler says: 'There were cobwebs in my pockets in Berlin and Vienna, and only the most necessary text-books were bought. On leaving Vienna, however, I could not resist Billroth's "*Coccobacteria Septica*" an expensive quarto, with beautiful plates—a curious pre-Kochian attempt to associate bacteria with disease, and now of value only as illustrating the futility of brains without technique.' This was one of Billroth's early works, published in this same year, and what may have been in Osler's mind when the paragraph quoted above was written, was the fact that Billroth, though even at that day by far the most distinguished Austrian surgeon, had failed to appreciate the relation of bacteria to suppuration, a matter which since the autumn of 1872 had received the unstinted support of other German surgeons, notably Karl Thiersch and Richard von Volkmann. Whether his expectation of taking a course in surgery was fulfilled is not apparent. It is, however, hardly conceivable that the discussions Lister's work had aroused should not have come to his ears while at University College, for his sojourn practically coincided with this great revolution in surgery, which must

¹ 'Uterine Thermometry.' *Canada Medical and Surgical Journal*, Dec. 1874, iii. 294.

have been freely talked of in laboratory circles, even though London operating rooms were admittedly slow to adopt Lister's principles.

To Miss Jennette Osler from W. O.

Vienna, March 22nd.

My dear Jennette, . . . I trust this week to begin my homeward progress and will probably get as far as Paris by Saturday. It is a matter of some forty hours by rail and I shall probably break the journey either at Munich or Strassburg, the galleries attracting at the former, the laboratories at the latter. A good deal will depend on how I feel on getting to Munich after a night on the train. My friend Hutchinson is still in Paris & will act as guide there. I expect to be in London for Easter Sunday. As a pleasing change we had our proper Parson at the chapel to-day, in whose place a converted Native has been officiating for some time. Anything—High—Low—Broad—will do for me after six months on the Continent. The chaplain here, a Mr. Johnson, is a remarkably fine looking old man, with long white hair & a face which reminds me of the portraits of the old Musicians. There is a dash of sadness also about it as though he was one of those who did not 'take the current when it served', and hence the consequence—a chaplaincy abroad, instead of a Bishopric at home. You see I am rather Shakespearian tonight. Shakespeare has been my light literature for some time: that accounts for it. We—Stephen [Mackenzie] & I—went for a long walk this afternoon to the Prater Park & the new Danube Channel in process of making. This latter is a wonderful work of engineering. . . . I am going to do the Royal Treasury and Stables, with one or two other little things this week, & then shall have pretty well finished the Vienna sights. My next will probably be dated Paris.

Love to all

Yours

WILLIE.

It was not until 1908 that Osler revisited Vienna. He sent home a letter at the time, intended for the American medical profession.¹ The paragraphs which describe the influence of the Vienna School on American medicine deserve reprinting:

I spent the first few months of 1874 here. I came from Berlin with Hutchinson, an Edinburgh man (Sir Charles F., who has recently died), and we lived together near the Allgemeines Krankenhaus. As illustrating the total blotting out of certain memories, particularly for places, I may mention that strolling to-day up the Alserstrasse I could not recall the street, much less the house, where we had lived

¹ 'Vienna after Thirty-four Years.' *Journal of the American Medical Association*, May 9, 1908, l. 1523.

for the four months. I found my way readily enough to the Riedhof, where we were in the habit of dining, and where I first met my old friends, Fred Shattuck, E. H. Bradford, E. G. Cutler, and Sabine of Boston. An extraordinary development has taken place in the city within thirty years, and I scarcely recognized the Ringstrasse. Then, only the foundations of the new university buildings and of the Rathaus had been begun. Now these, with the parliament house, the courts of justice, the twin museums of art and natural history, and the new Bourg Theatre, form a group of buildings unrivalled in any city. . . . As a medical centre, Vienna has had a remarkable career, and her influence particularly on American medicine has been very great. What was known as the first Vienna School in the eighteenth century was really a transference by van Swieten of the School of Boerhaave from Leyden. The new Vienna School, which we know, dates from Rokitansky and Skoda, who really made Vienna the successor of the great Paris School of the early days of the nineteenth century. But Vienna's influence on American medicine has not been so much through Skoda and Rokitansky as through the group of brilliant specialists—Hebra, Sigmund and Neumann in dermatology; Arlt and Jaegar in ophthalmology; Schnitzler and von Schrötter in laryngology; Gruber and Politzer in otology. These are the men who have been more than others responsible for the successful development of these specialties in the United States. Austria may well be proud of what Vienna's school has done for the world, and she still maintains a great reputation, though it cannot be denied, I think, that the *Æsculapian* centre has moved from the Danube to the Spree. But this is what has happened in all ages. *Minerva Medica* has never had her chief temples in any one country for more than a generation or two. For a long period at the Renaissance she dwelt in northern Italy, and from all parts of the world men flocked to Padua and to Bologna. Then for some reason of her own she went to Holland, where she set up her chief temple at Leyden with Boerhaave as her high priest. Uncertain for a time, she flitted here with Boerhaave's pupils, van Swieten and de Haen; and could she have come to terms about a temple she doubtless would have stayed permanently in London where she found in John Hunter a great high priest. In the first four decades of the nineteenth century she lived in France, where she built a glorious temple to which all flocked. Why she left Paris, who can say? but suddenly she appeared here, and Rokitansky and Skoda rebuilt for her the temple of the new Vienna School, but she did not stay long. She had never settled in Northern Germany, for though she loves art and science she hates with a deadly hatred philosophy and all philosophical systems applied to her favourite study. Her stately German shrines, her beautiful Alexandrian home, her noble temples, were destroyed by philosophy. Not until she saw in Johannes Müller and

in Rudolph Virchow true and loyal disciples did she move to Germany, where she stays in spite of the tempting offers from France, from Italy, from England, and from Austria.

In an interview most graciously granted to me, as a votary of long standing, she expressed herself very well satisfied with her present home where she has much honour and is much appreciated. I boldly suggested that it was perhaps time to think of crossing the Atlantic and setting up her temple in the new world for a generation or two. I spoke of the many advantages, of the absence of tradition—here she visibly weakened, as she has suffered so much from this poison—the greater freedom, the enthusiasm, and then I spoke of missionary work. At these words she turned on me sharply and said: ‘That is not for me. We Gods have but one motto—those that honour us we honour. Give me the temples, give me the priests, give me the true worship, the old Hippocratic service of the art and of the science of ministering to man, and I will come. By the eternal law under which we Gods live I would have to come. I did not wish to leave Paris, where I was so happy and where I was served so faithfully by Bichat, by Laennec and by Louis’—and the tears filled her eyes and her voice trembled with emotion—‘but where the worshippers are the most devoted, not, mark you, where they are the most numerous; where the clouds of incense rise highest, there must my chief temple be, and to it from all quarters will the faithful flock. As it was in Greece, in Alexandria, in Rome, in Northern Italy, in France, so it is now in Germany, and so it *may be* in the new world I long to see.’ Doubtless she will come, but not till the present crude organization of our medical clinics is changed, not until there is a fuller realization of internal medicine as a science as well as an art.

Early in April he returned to London to complete the paper dealing with his researches in Sanderson’s laboratory, and to revisit his friends and relatives before his departure to Canada.

To his sister from W. O.

Thursday, April 16th.

My dear Chattie, Your letter addressed U.C.H. arrived all right to-day. I am still in London having postponed my Cornwall visit till next week. I had intended to go down on Saturday but Prof. Sharpey the Vice-President of the Royal Society most kindly gave me an introduction to their Soirée which comes off next Wednesday & as it is a very swell affair—swell in my line—I shall wait for it. I have been very busy since my return, spending the whole day at the Laboratory from 9 a.m. to five. I am glad to hear such good news of the Staplehurst people & I suppose by the time I get home they will look themselves again. I leave from London somewhere about the 20th May so that early in June you may be on the look

out. I heard Canon Liddon last Sunday afternoon at St. Pauls; he is as good as ever. I have got very low-church lately & am afraid Fathers Johnson and Wood will be horrified. . . . I am scrawling away in the Library of the Coll of Surgeons where I have been hunting up some references and had almost forgotten about the Canadian mail. Another budget of letters were forwarded from Vienna a few days ago. I dined last evening with the Schäfers at Highgate. The son is Sanderson's Assistant in the laboratory and has been very kind, assisting me in many ways. They are nice people, & such *nice girls*. I did not know who Sophie was engaged to until yesterday when on calling at the Sheppards they told me all about it. Goodbye old girl pro tem. Love to all Yours

WILLIE.

Reminders of the affair which was 'swell in my line' are to be found in two of the books in Osler's library. In one of them he mentions having met Charles Darwin at this soirée, and of the pleasure it gave him to have the kindly old man with bushy eyebrows speak pleasantly of Principal Dawson of McGill. And it is quite probable that it was at a dinner beforehand that Sharpey gave him as a memento the volume in which he subsequently made the following note:

Professor Sharpey had resigned the previous year but was much about the laboratory and often came to my desk in a friendly way to see the progress of my blood studies. One evening he asked me to dinner; Kölliker, Allen Thompson and Dohrn were there. When saying goodbye he gave me Davy's *Researches* with an autograph inscription.

It must have been a treat for the young man to meet these distinguished anatomists and friends of Sharpey's in this intimate way. Kölliker, a Swiss of the highest distinction, was at the time Professor in Würzburg, while Anton Dohrn was Director of the Naples Zoological Station. Like Sharpey himself, they were anatomists of the physiological school.

His 'scrawling in the library' was probably in completion of his paper submitted on May 6th, and presented by Burdon Sanderson on June 18th before the Royal Society after he had sailed for home.¹ The title was not particularly

¹ 'An Account of Certain Organisms Occurring in the Liquor Sanguinis.' *Proceedings of the Royal Society*, 1874, xii. 391-8.

fortunate, and the paper contains a hint as to the possible relation to bacteria of the masses of blood platelets which others had seen before him. This can only be accounted for by the influence of H. C. Bastian, whose 'The Beginnings of Life' had just appeared, and whose views on spontaneous generation may have permeated even into his colleague Sanderson's laboratory at University College. The most important fact brought out by the study, and which was quite novel, was that these 'elementary particles' as they were called, are discrete in the circulating blood and never clumped, as is always the case after blood is drawn; and Osler's figure showing them within a small vein is still in use in text-books of histology.¹

¹ The importance of this study has been fully commented upon by W. T. Councilman ('Some of the Early Medical Work of William Osler', *Johns Hopkins Hosp. Bulletin*, July 1919, xxx. 193-7). There were three subsequent papers in which he added still further to the knowledge of these platelets: viz. 'Infectious Endocarditis', *Archives of Medicine*, N. Y., 1881, v. 44, in which he discussed the newly accepted view of their relation to thrombus formation. This was further elaborated in an article, 'Ueber den dritten Formbestandteil des Blutes', *Centralblatt für d. med. Wissenschaften*, 1882, xx. 529. Again in a final article 'On the Third Corpuscle of the Blood', *Medical News*, Phila., 1883, xliii. 701, he gave a general presentation of the subject.

CHAPTER VI

1874-5

THE YOUNG PROFESSOR AT MCGILL

AFTER his long absence Osler had returned to Canada with empty pockets, and naturally anxious for a job. It is recorded that for a time he took over the work of a local practitioner in Dundas, and the first fee as a practising physician entered in his account-book reads, 'Speck in cornea . . . 50¢'—an entry he was known to point out to aspiring young M.D.'s in later years with a twinkle in his eye. He also served for a month as *locum tenens* for Dr. Charles O'Reilly, a McGill graduate who had long been Resident Physician at the City Hospital in Hamilton, and tradition relates that he took the post 'for the consideration of \$25 and a pair of old-fashioned elastic-sided boots which had proved too small for Charlie O'Reilly'. However this may be, he was not long left in uncertainty as to his future :

To W. O. from Palmer Howard, 47 Union Avenue, Montreal,
July 6th, '74.

My dear Osler,—I have just ret^d from a Meeting of the Med^l Faculty of the College at which I am happy to be able to inform you it was agreed to recommend you to the Governor of the College for the office of Lecturer upon Institutes in the room of Dr. Drake who resigns on account of ill health. You have not been spending your time in vain in working at practical physiology and I must heartily congratulate you upon this fine prospect that has opened before you. The fees of the students will at least meet your actual expenses for board, clothes, etc., and the position in the college will afford the strongest proof to the public that you are at least a well qualified physician and that experience is all that you require to merit their patronage. I would advise you to come down at once, hang out your shingle, and set actively to work upon your *lectures*—you will find the time short enough. Drake can be of much assistance and is willing to be ; and he has a fine collection of diagrams which will be of use and which he will no doubt dispose of to you very reasonably. You will receive an official letter from the Dean no doubt by the same mail that conveys this—answer it at once. The time is a favourable one moreover at which to enter

upon practice—for although you will have to wait for that like others—labour will procure its reward in that field also. Please present my congratulations to y^r father upon this gratifying recognition of y^r merits by the oldest medical school in Canada. All y^r friends here will be much pleased on your account. I regretted to have missed you on your arrival from Europe as you must have had lots of recent information to impart and as I wanted to hear of your doings—but you know what I was about and no doubt will forgive me. I hope soon to see you here and ‘to hear of y^r affairs’. Till then I remain

Very sincerely yours

R. P. HOWARD.

Preserved with this letter is the fragmentary draft of Osler's reply, which says :

... I do not accept without some diffidence, still I hope to be able to work up a decent set of Lectures. I am glad it is only a Lectureship. It not only sounds better (as I am so young), but to my English friends Sanderson, Sharpey, Klein, &c., it will seem more in keeping with what they know of my attainments. It now remains to be seen whether with teaching & [private practice] I can follow up any original work. Of course I shall try hard.

Meanwhile, during his few weeks in Dundas and Hamilton he had cemented friendships with members of the local profession. Indeed he never failed to ingratiate himself, wherever he might be, with the older practitioners in particular, towards whom he always felt especially drawn. So an enduring attachment was established at this time with two Hamiltonians of an older generation, themselves intimate friends : Dr. John A. Mullin and Dr. Archibald Malloch, a fine Scot, one of Lister's pupils and the leading surgeon of the region. Evidence of his affection for and interest in the ‘doctors of the old school’—men like James Hamilton, who practised sixty years in West Flamboro—crops out in many of his writings. There was, for example, a Dr. Case, who in 1809, when four years of age, had been brought from Pennsylvania to Upper Canada by his U. E. loyalist father. For fully forty years he had occupied a house in Hamilton, on the corner of King and Walnut Streets, and long after he had given up practice he was wont to sit in the window and nod to his numerous acquaintances, or reminisce with those who would drop in and pass the time of day with him. This Osler never failed to do

when in Hamilton, and some years later in an editorial entitled 'Doctors' Signs', in which he poked fun at this questionable form of advertising, he ends with this paragraph:

Happy the man whose reputation is such or whose local habitation is so well known that he needs no sign! This is sometimes the case in country places and small towns, not often in cities. We know of one such in a prosperous Canadian city. Grandfather, father and son have been in 'the old stand' so long that to the inhabitants of the locality the doctor's house is amongst the things which have always been. The patients' entrance is in a side street and a small porch protects the visitor. The steps are well worn and the native grain is everywhere visible in the wooden surroundings. There is neither bell nor knocker and the door presents interesting and, so far as we know, unique evidences that votaries to this Æsculapian shrine have not been lacking. On the panels at different heights are three well-worn places where the knuckles of successive generations of callers have rapped and rapped and rapped. The lowest of the three, about three feet from the floor, represents the work of 'tiny Tim' and 'little Nell', so often the messengers in poorer families. Higher up and of less extent is a second depression where 'Bub' and 'Sis' have pounded, and highest of all, in the upper panel a wider area where the firmer fists of the fathers and brothers have as the years rolled on worn away the wood to nearly half its thickness. Such a testimony to the esteem and faithfulness of successive generations of patients is worthy of preservation.¹

He must have proceeded to Montreal about the first of August, to judge from an account-book of this period—almost the last in which he took the trouble to itemize his expenditures. It begins: 'Fare, Hamilton to Montreal, \$12.50'; and his first entries after his arrival are:

Fees for Desk and Chair on acct.	12.25
Book case, on account	12.35
Ton of coal	8.00
Subscription to 'Churchman'	3.00
Book bill Dawsons	20.00
Rent of room \$10 per month	

He thus with a desk, a chair, a bookcase, and a ton of coal furnished a room at 20 Radegonde Street, below Beaver Hall Hill, in the lower part of Montreal, and there he hung out

¹ *Canada Medical and Surgical Journal*, Dec. 1883, xii. 312. When the old house was finally demolished in 1894 the door was saved and is now in the Hamilton museum in Dundurn Park.

his 'shingle', though it does not appear that any patients were ever attracted thereby, nor, had they been, that he would have been found at home. His first task, for which he had little taste, was to prepare the formal lectures for the year, and, as he later confessed, he groaned heavily over the obligation: 'When I returned to Montreal in September 1874 the Professor of the Institutes of Medicine had had to retire on account of heart disease, and instead of getting, as I had hoped, a position as his demonstrator the Faculty appointed me lecturer with the ghastly task of delivering four systematic lectures a week for the winter session, from which period dates my ingrained hostility to this type of teaching.' One of the pupils in his first class, Dr. Beaumont Small of Ottawa, thus writes of his impressions:

I saw him first as he entered the lecture-room to open his course on the Institutes of Medicine. Quick and active, yet deliberate in his walk and manner, with a serious and earnest expression, it was evident that he looked upon his lectures as serious, and at once imparted the same feeling to others. In a very few words he welcomed his class, stated what he hoped to do and what he expected in return, concluding with a gentle warning that he expected attendance and attention from all. We succumbed to that genial and kindly manner which has been so characteristic throughout his life, and I doubt if any professor had more carefully studied lectures, or better attention than was given to him.

The lecture began with an explanation of the old Edinburgh term of Institutes of Medicine. Then in bold outline he sketched inorganic and organic matter, vegetable and organic life, vital force, and closed with a description of cellular life and an outline of future lectures. From that hour physiology was an attractive study and the lectures like unto the Gods.

When I look back upon that period it is evident that 1876-7 was the beginning of a period of *renaissance* for McGill, and Osler the moving spirit, but it would not be right to impart to him all the credit. The recent appointments to the Faculty of Ross, Roddick, Shepherd and Gardner, all young and energetic, of the highest type of professional standing, was not without design. These supported by the mature wisdom of Dean Campbell, R. P. Howard and Craik could mean only progress and resulted in the reputation that McGill achieved during the succeeding decade.

The period, as Dr. Small says, was truly one of a new birth for McGill, and though by no means due to Osler

entirely, his personality nevertheless—there as in other places during his subsequent migrations—proved to be the leaven which raised the loaf, as shown by the flattening-out which always followed his departure.

‘Jimmie’ Johnson had entered the school, and for various reasons Osler’s advances in the way of giving him financial aid and of taking him as a boarder were rejected. Father Johnson, if one may judge from his letters to his son, undoubtedly felt that the unorthodox and non-sectarian environment of University College had had a demoralizing effect upon his former pupil: he could not stomach the fact that Osler had gone to an institution where youths on their admission were not obliged to sign the Thirty-nine Articles, and which revered the secular Jeremy Bentham to the extent of preserving in its museum his clothed skeleton—for he had left his body to be dissected at University College. One of the letters is particularly severe—to the effect that Osler’s power of application was the single characteristic worthy of imitation. But this after all was what Osler often said of himself—that he had but a single talent—a capacity for industry. Osler, however, could apply himself not to work alone, but to play as well, and always knew where to find children with whom he could frolic. His cousin writes: ‘Willie dropped in four times on Saturday; he stole the new kitten, and now the old kitten, and the children are wondering where she is. He has just come in to tea.’

During these years in Montreal chance brought him into frequent contact with a group of men who were enriching Canada and incidentally themselves by transactions concerned with the opening up of the great West. He often recalled in later years how at this time his brother, ‘E. B.’, then chairman of the Temiskaming or some other railway, used to come down to Montreal nearly every week, and how on his return from the college or hospital he would find a note from Donald A. Smith (afterwards Lord Strathcona), saying: ‘At 7.00 as your brother is down.’ R. B. Angus, McIntyre, George Stephen, and others would be likely to be there also; and after the meal, in spite of Osler’s presence, the talk would be on matters foreign to his taste and under-

standing—of finance and the affairs of the C. P. R., which was going through a period of hard sledding. Far more to his taste was the monthly dinner club formed by a group of the younger members of the Faculty—a club famous for the pranks and practical jokes its members played on one another. In this coterie, Osler's chief intimates, with the possible exception of Arthur Browne, were George Ross and Francis J. Shepherd, and such outings as he permitted himself to engage in were usually taken 'up country' in company with these two.¹

He went home to Dundas for the Christmas recess, stopping off for a visit with the Toronto relatives; and while there, as was characteristic of him, he dropped in to introduce himself and to give a welcome to the newly appointed Professor of Biology in the Toronto School, who had come from Edinburgh. Ramsay Wright had recently arrived in Toronto to take this post, and he recalls that Osler, behaving like an old acquaintance, and stating that he had borrowed his brother Edmund's carriage for the purpose of driving out to see his old preceptor in Weston, asked if he would not go along. They found Johnson wearing cassock and cross, and living alone in the old rectory, for his wife before this had left him, to go and live with one of their sons. They shared a frugal meal prepared by Johnson and laid out on a plain deal table, beside which they sat on a pine board seat. But there was talk of natural history, particularly of animal parasites and of some of the entozoa they had found and observed but were unable to identify. One of these in particular, a trematode worm found in the gills of a newt, Professor Wright subsequently became sufficiently interested in to describe in full in his first paper published in Toronto. In view of the source of his primary introduction to Canadian helminthology at the time of this Christmas visit to Weston, he named this particular species *Sphyranura Osleri*.²

¹ Dr. F. J. Shepherd relates that in 1874 Osler examined both him and Ross for life insurance, he being rejected owing to a valvular lesion of the heart. Of the three he alone survives.

² R. Ramsay Wright: 'Contributions to American Helminthology', *Proceedings of the Canadian Institute*, new series, Vol. I, No. 1, 1879. *Sphyranura Osleri*, nov. gen. et spec. 'I have lately received [he wrote]

To F. J. Shepherd from W. O. No. 20 Radegonde St., Montreal,
January 1st, 1875.

My dear Shepherd, I was so glad to get your note from Marburg. You did nicely to go to a small University town where English Students are scarce. One sees more of German life in that way & picks up the language in half the time. When do you go on to Wien? I shall call on your people this afternoon and find out where I am to address this letter. I am glad you saw Philpot in London: he is a first rate fellow & his introductions will be useful. The 'Riedhof' Restaurant you will no doubt patronize in Vienna. It is about the best and you are sure of meeting other English fellows there. When do you return? & are you going to settle in Montreal? There is a talk of the Dean resigning in the spring and of course there will be a vacancy in consequence. Or in any case there must be a vacancy before long and the Demonstratorship will be open. The question is: why should not you get it? Cameron of course will be in the field; but I am sure if a vacancy occurs in the spring & Chipman goes out of the Hospital leaving Cameron full Surgeon, there will be opposition to his holding both appointments; and you would have backers for the Demonstratorship among the Faculty. Remember this comes solely from me. I have heard no other opinions on the subject. I think however you would be wise in paying some attention to practical anatomy in Vienna and attend the lectures of Hyrtl's successor—whoever he is. The courses on operative surgery by Billroth's assistant are also splendid. I am working away at my lectures and so far have got on fairly well. Do you return by way of Paris? If so I would like you to execute a little commission for me there; and I may also trouble you to bring a few little things from Germany. I will send a list & place the dimes to your credit at—where? Bk. of Montreal here or London?

Yours very sincerely

Wm OSLER.

Preparing for these formal old-time lectures, such as were expected of a teacher in the '70's, must have been a torment to him. The portfolio, 'tanned with exposure and chapped

from my friend Professor Osler, of Montreal, several specimens of a worm taken from the gills and cavity of the mouth of our common lake-lizard (*Necturus lateralis*, Raf.). These had been preserved for eight years in Goadby's fluid, and proved to be comparatively useless for further examination, having become quite opaque and black in colour. From some specimens, in a good state of preservation, mounted by Dr. Osler for microscopical examination, and also from his notes and sketches made on observation of the fresh specimen, I am able to communicate the following. The only specimen of *Necturus* which I have had the opportunity of examining since receiving these did not yield any of the worms . . .'

with rough handling', in which he carried them, holds to-day a few yellow, much-foxed sheets with the students' names, and this note written in a later hand :

'This is my lecture portfolio with the list of students in the last class (1883-4) to which I lectured at McGill. The rule was to call the roll once a week, but as the list shows this was not always carried out. For the first few years I wrote out and read my lectures. I am sorry no copy has been kept for I destroyed them all on leaving Montreal. Then I got into the habit of lecturing from slips, two of which are here preserved, one on the skin and the other on glycogen.

To W. O. from W. A. Johnson.

The Parsonage, Weston,
March 4th, 1875.

My dear Osler,—I suppose you are getting to the close of a first term now & are getting a little breathing time. I never seem to forget you. . . . There are few, very few conditions in this world, in w^h men may not, and do not jostle one another, cross one another's path, get into one another's way, so to speak. Friendships may be formed, but circumstances interfere with them. The nearer our calling or occupation or profession is alike, the more likely to cross one another. I always had, & have still the highest esteem for our mutual friend Dr Bovell as a Dr but I do not know how to address him as a Priest. With his medical opinions I could not differ; only do as he told me to: it is not so with religious opinions, there might be different opinions leading to different ends or doctrines, & demanding diverging or crossing courses of action. It is pleasant to have a friend in whose case these things can not occur. It is pleasant to feel that what your friend is doing, is right (for you can not even surmise it is wrong) & ask a blessing on it. This is the kind of spot left in my memory of yourself. . . . Are you working *especially* at any one point this winter? I look for a specimen or two: anything; it will be interesting, & always serve as a remembrancer. How is Jimmie doing? . . . He has twice or thrice mentioned, when sending an a/c of fees paid or unpaid, that you had given him his ticket; & intimated or said, it was not necessary to pay for it. I know your kindness would suggest this, but you are not indebted to me in any way to warrant such a deprivation. . . .

I suppose you must have noticed that, to all appearance, I did not do the kind thing to your dear Father & others on the Comⁿ w^h the Bp. [Bishop] appointed to find charges against me. Whether you thought so or not, there was good reason from all the *public* has seen, to think so. I was very peculiarly placed, and saw no way but irony to meet it. I am waiting the Bp's decision before writing a last letter, apologizing for seeming rude, & showing why that was the only course open to me. Two most important principles were

assailed. I told the Bp. I dare not be a party to the proceedings. He tried to force me. I could not submit. I must meet the Comⁿ or my case would go by default : I could not appear or the principle was compromised : I could not touch the subject by way of evidence, or reason upon it, because it had not been heard : & having assured the Bp. he had no authority whatever to create the commission, irony was the only way to show I meant all I said, & defy further proceedings. I know irony & sarcasm drive away one's friends, therefore you had better never attempt to use them : but they have their time & place, & looking at it now with calm & unbiased view I still think I did well, & if the same causes arose would treat them as I did then. The private correspondence between the Bp. & myself is the only means of understanding the matter, but this shall never be made public with my consent alone. The poor Bp. whose kindness to me is unwearied and real, expressive of high praise also, is really in a 'tight' place. I have promised to *obey his orders* immediately & without a murmur, but neither to gainsay or accept his *opinions*. I have removed every obstacle to his decision that I know of, & I hope daily to receive it.

Is there any chance of your coming up this way after Easter? I suppose the smallpox hospital keeps you more or less busy ; but the number of patients decreases a good deal towards spring & summer, so you might get away for a trip to see, & gladden old faces again. Everything much as usual here. I have not paid the Humber Ponds a single visit this winter, & now we are snowed in in every direction. With my best wishes for your success, health & happiness, & hoping to have a line, when you have time & inclination believe me, as ever

Your sincere and affect^e friend,

W. A. JOHNSON.

It was a dictum of Southey's that 'a man's character can more surely be judged by those letters which his friends addressed to him than by those he himself penned, for they are apt to reveal with unconscious faithfulness the regard held for him by those who knew him best'. And there might be added to this statement—particularly if they were letters which the recipient saw fit to preserve. There need be no other excuse for the inclusion in this story of these several epistles from Johnson, much as one might prefer to see those passing in the other direction. They were among the few old letters found among Osler's papers, for it was not his habit to preserve correspondence. Poor Johnson ! It was a needless warning to his favourite pupil that he should be a stranger to irony and sarcasm. Aban-

doned by his wife, it is said that Johnson never again locked the door of the rectory ; but though a lonesome old man he did not live in the past alone, as this note by Miss Kathleen Lizars of Toronto indicates :

When I was eleven and twelve years old I spent many week-ends with the Rev. Mr. Johnson. The picture of him is in my mind quite clearly, even across this space of time. Tall, spare, his hair brushed straight back in the style now affected by young men, austere and lovable in combination ; always in his cassock, and the cross hanging unostentatiously, always with his house half full of people and most of them young. He often talked of his boys, but I did not take it in then what he meant. The school had gone long before I knew him. His ritualistic practices (very ordinary for nowadays) earned the enmity of the villagers—we were always awestruck at the signs of broken windows and marks of stones or hatchets on the altar.

On March 31st Osler gave the valedictory address to the graduating class at the annual convocation. It was his first effort in this direction, and though he probably agonized over it as most young men would under the circumstances, it shows little of the literary quality which gave the charm to his later addresses. They were often better in the material than in the manner of delivery, for he never possessed those oratorical gifts not uncommon among medical teachers which make possible the impressive presentation of material that proves to be shadowy in substance on later perusal. One finds in this brief address, nevertheless, many hints of the professional points of view he came to acquire. It is therefore an epitome of things he continued to dwell upon more and more emphatically as the years progressed. After pointing out that their training was incomplete, that they must be students always, since medicine, unlike law and theology, is a progressive science, he urges them to keep up with their reading, to cultivate books, to get in the habit of attending societies and reporting experiences, thus co-operating with the journals. He points out that behaviour is more certain to bring success than 'a string of diplomas' ; quotes Sir Thomas Browne to the effect that 'No one should approach the temple of science with the soul of a money-changer' ; touches on their obligations to the poor, on the question of livelihood,

on the relationship between doctors, and ends with an appeal for sobriety, more needed happily by students of those days than of the present. Still a total abstainer himself, some of his more intimate young friends, men of the greatest promise in the profession, were already going to the ground, despite his personal efforts to help them, of which there are many stories.

At the end of the semester Osler was officially appointed to Dr. Drake's chair as Professor.¹ He had distinctly made good during his year as Lecturer. His industry, to which, as already told, he often referred as his single talent, was prodigious. He was not content merely with the mapping out of his new course and preparing the necessary lectures, a task arduous enough in itself. Having no hospital position and being eager for opportunities in the pathological laboratory, he volunteered for this work, and though it was the custom at the time for the visiting physicians and surgeons at the Montreal General to perform their own autopsies, they came more and more to lean upon Osler for this purpose, and it was inevitable that in time the position of Pathologist should be created for him.

Nor did he fail even in these early days to prod others. Some one once said in after years that it was always a pleasure to receive even a postcard from Osler, in spite of the drawback that it often suggested a lot of work. The following hint to Shepherd to send an open letter to Fenwick, who was editor of the local journal, has therefore what comes to be a familiar ring :

To F. J. Shepherd from W. O.

April 6th, 1875.

My dear Shepherd,—I am delighted to be able to inform you that at a meeting of the Faculty last evening you were appointed Demonstrator of Anatomy, & allow me to offer you my sincere congratulations on the occasion. An official letter from Craik will either accompany or follow this, and containing also a recommendation to take advantage of the remaining time at your disposal to

¹ Dr. Maude Abbott relates that in 1908, when Sir William paid one of his periodical visits to the Pathological Museum at McGill, she showed him a heart among the specimens in the collection, in a jar which had lost its label, and asked if he could identify it. He made the enigmatical remark : ' If that heart had not petered out when it did, in all probability I would not be where I am now.' It was Drake's.

work up as far as possible the subject in its practical bearing, injecting, &c. I should think any of the Demonstrators at Wien would be only too glad for a 'consideration' to put you up to all the latest methods and old Hyrtl's museum would be worth going over carefully. Could you not send Fenwick a paper—or letter—on 'Anatomy at Vienna'. It would take well if you did. You are lucky in having had warning and time to prepare, & not taken short as I was. . . . I called at your house this morning to tell the news, but only found your sisters at home, & they as you may suppose were very glad to hear it. It seems to give very general satisfaction to all and no doubt it will to you for of course it is only a stepping stone to other appointments. I am going to pickle some brains for my own use this Summer & will try to get some for you also. It would come useful if you had a course on the Microscope as well & if you return to London by the end of June, Klein of the Brown Institution is the man to go to, but I dare say one of Brücke's assistants in Vienna has good courses always in progress. Have you seen Hyrtl's 'Handbuch der praktischen Zergliederungs Kunst'? Dr. Campbell has resigned the chair of Surgery but remains as Dean of the Faculty. Fenwick succeeds him and Roddick gets Clinical Surgery. The Dean still retains active connection with the school and will preside at meetings, &c. He goes home to Europe for next Winter. Browne has taken Ross's house (Craik's old one) & should do well at the corner. I do not know where to go; rooms are so difficult to get. . . .

Though Joseph Hyrtl was, and will always remain, one of the brilliant figures of medical history, and though his manual of dissection was a classic to put in a class with Virchow's post-mortem manual, it is nevertheless interesting at this early day to find Osler referring others to important books, even to those which did not happen to be in his special field. He not only read widely and voraciously, but had already started at this time a Journal Club for the purchase and distribution of periodicals to which he could ill afford to subscribe as an individual. Into this club were drawn Buller, Shepherd, Fenwick, Drake, Howard, Ross, Cline, MacDonnell, and Godfrey, each of whom 'chipped-in' ten dollars for the purchase particularly of the French and German journals. The first instalment was ordered on April 13, 1875, and Osler kept a list of their reception and distribution. Most of the excellent abstracts, contributed to the local medical journal of which Fenwick and Ross were editors, were doubtless supplied by the members of

this club, the pen of the secretary-and-treasurer being probably the busiest.

These were happy though penurious days: for to teach physiology and histology, the subjects comprised by the 'Institutes of Medicine', as he thought they should be taught, meant drawing heavily on his small income. 'The students', as he subsequently wrote, 'paid fees directly to the instructors, who provided equipment and material and lived on the balance. I did more of the former and less of the latter. The supply of microscopes was meagre, and after remedying this defect there was little left in my pockets.' Indeed he had often to go to Palmer Howard to borrow cash to meet his day's expenses, and as he quaintly expressed it in later years: 'I suffered at that time from an acute attack of chronic impecuniosity.'

To F. J. Shepherd from W. O.

No. 20 Radegonde St.,
May 28th [1875].

My dear Shepherd, Your letter came to hand yesterday. I can very well understand your hesitation in accepting the Demonstratorship for I have felt the same thing myself. You will get over that, and should too, for remember what advantages you have had and are having. You will come to your work better prepared than any Demonstrator McGill has had for many a year. When had Roddick dissected last on his accepting it? probably in his third year. I wish I was with you in Wien just now. Everybody says it is so enjoyable there in the spring months. I suppose you will bring a Hartnack microscope out with you when you come; it will be useful. Do you return by way of Paris? If so I wish you would call at his place No. 1 Rue Bonaparte and see what condition the Microscopes I have ordered are in. I ordered 12 & want them out before the session begins so that you may perhaps hurry him up a little. I want you to get me the Photos of the following men—that place in the Graben is the best. Hyrtl, Hebra, Bamberger, Skoda, Oppolzer—(dead but photo extant), Jäger, Billroth, Stricker, Rokitansky—who is his successor, by the way? Is it Recklinghausen, if so one of his also)—one in any case, no matter who—Carl Braun, Brücke (2). Also a set of those cheap photos of the City (Cartes). Could you also get a Strickers *simple* warm stage. They are made by Kuntz, I believe, but Schenck could tell you about them. They are about 6-8 gueldern. I want badly some back numbers of the Arch. für Heilk. but it will pay me better to go to Boston and consult them than buy the whole set. I have a number of cases of purpura in smallpox & am preparing a paper on the subject. Take a note

of anything you may hear or see upon the subject. I may want a treatise or two, but if so will write you by next mail. I shall deposit some cash to your credit at your brothers office. We are getting a little nice weather at last, but things as yet are very backward. Browne is doing very well in his large house. Practice is dull—never has been brisk. O.C.E. is in much the same state, but unfortunately has not a College and Hospital to butter his bread. Your people have been very kind indeed to me. I was at Como on the 24th with your brother & spent a very pleasant day. Let me know when you are to be in London.

The twelve microscopes which he had ordered for his class were made possible, as will be seen, by a small salary which he was given for undertaking a disagreeable and, it may be added, a dangerous task. It was, however, an entering wedge to get clinical opportunities, which he promptly drove home. For it is evident from the letter of March 4th from Johnson, as well as from this one to Shepherd, that he was already at work in the smallpox wards, and it is characteristic of him that he immediately began to make profit out of the clinical and pathological material the position offered for purposes of publication. The Montreal General in the 1870's was a modest institution of only about 150 beds, ill-lighted and ill-ventilated. The mob-capped nurses were then of the Sarah Gamp type, who, as Dr. Shepherd recalls, were not strangers to the cup that more than cheers, and it was long before modern wards and the modern type of nurse came to supplant the old order. Attached to the hospital, with quarters worst of all, was an isolated smallpox ward, in which it was the custom, apparently, for members of the attending staff to serve successively for periods of three months. In this year of 1875 smallpox of a particularly malignant form was rife, and early in the year Osler's offer to take the service had been accepted, though at the time he was merely a volunteer worker in the dead-house, and not a member of the hospital staff.

Smallpox, at this period more or less epidemic everywhere, was particularly severe in most seaport towns. Vaccination was not compulsory, revaccination was rare, and quarantine most infrequent. There had been a succession of editorials and protests in the Montreal journals over the existing conditions; and the 'M. G. H.' had long

made efforts to have revoked the existing law which obligated all hospitals receiving grants from the legislature to accept smallpox patients.¹ The contagion on several occasions had spread from the isolation ward to other parts of the hospital, with the forfeiture of the lives of people who had been admitted for minor complaints; and finally, Peter Redpath, then President of the Hospital Board, made an appeal through the lay press in which he quoted from the Report of the Boston City Hospital to the effect that not a single case of smallpox had appeared in Boston during the preceding twelve months owing to their proper city care, whereas in the poorly segregated wards at the Montreal General Hospital there were always more than one hundred cases at a time.

It is quite possible that one influence which led Osler to volunteer for the position was his interest in skin diseases, which during his sojourn in London had been aroused by Tilbury Fox, for otherwise it certainly was not a service which he would have courted. However, it was his first chance to have hospital patients under his control, and we may imagine with what enthusiasm he went to work. His first publication from these wards was the report in July 1875 of a case of scarlatina which had appeared in a woman convalescing from smallpox, and at the end of the report he admits with frankness that he might possibly have conveyed the contagion himself.² If he had wished for an active service, as he probably did, he could not have struck a better time, for the epidemic, though not so severe as that of 1885-6, was at its height during this summer. In August another editorial appeared in the local journal, which stated: 'The smallpox wards of the Montreal General Hospital must be removed or else the hospital will be ruined as a general hospital.' And in September of this year there was an anti-vaccination riot, during which the house of one of the medical health officers was gutted. Meanwhile, undistracted by all this agitation, Osler was using his opportunities to the full, for the service put

¹ Cf. the *Canada Medical and Surgical Journal* for 1873-4.

² 'Case of Scarlatina Miliaris.' *Canada Medical and Surgical Journal*, July 1, 1875, iv. 49.

post-mortem material under his control, and from this source were drawn several of the reports, like that 'On the Pathology of Miner's Lung', presented during the subsequent months before the Medico-Chirurgical Society. This particular report¹ was an admirable article dealing with the experimental pathology of anthracosis, in which he became greatly interested, and for which he made the drawings accompanying the text. Other papers, of less moment, followed during the course of the year—on the pathology of smallpox; on the development of vaccine pustules—but more important were his two articles on the initial rashes and on the hæmorrhagic form of smallpox, the most virulent type of the disease known since the beginning of the century. In this latter article he says :

'The epidemic which has raged in this city for the past five years has been remarkable for the prevalence of this variety of the disease; and the present paper is based on 27 cases, 14 of which came under my own observation, chiefly at the General Hospital, while the remaining 13 were under the care of my predecessor, Dr. Simpson, to whose kindness I am indebted for permission to utilize them. . . . In the smallpox department of the Montreal General Hospital there were admitted from Dec. 14, 1873, to July 21, 1875, one year and seven months, 260 cases. Of these 24 died of the variety under discussion, or 9.23 per cent.'²

As an example not only of his kindness of heart but also of how strangely people's paths may cross in this world, a story of this period may be told. He had joined his first club this autumn of 1875, the Metropolitan, where he was accustomed to dine, and as he was often alone he occasionally sat with an attractive young Englishman who chanced to be in Montreal on business and who had been put up at the club. One evening, observing that he appeared ill, Osler questioned him, and suspicious of the symptoms, got him to his rooms and to bed, where it was soon evident that he had malignant smallpox. The disease proved fatal after an illness of three days, and having learned the young

¹ *Canada Medical and Surgical Journal*, 1876, iv. 145.

² 'Hæmorrhagic Smallpox.' *Canada Medical and Surgical Journal*, Jan. 1877, v. 288, 301.

man's name and the address of his father in England, he wrote :

To Mr. N—— from W. O. 20 Radegonde St., Montreal.

My dear Sir,—No doubt before this, the sorrowful intelligence of your son's death has reached you, and now, when the first shock has perhaps to a slight extent passed away, some further particulars of his last illness may be satisfactory. On the evening of Thursday 22nd, & on the following day, I discovered unmistakable evidence of the nature of his disease. On Saturday in consultation with Dr. Howard—the leading practitioner of our city, his removal to the smallpox Hospital was decided upon. I secured a private ward & took him there in the evening.

Even at this date was seen the serious nature of the case, & I sent for Mr. Wood at his request. At 10 p.m. I found him with your son, & we left him tolerably comfortable for the night. He was easier on Sunday morning, but well aware of his dangerous state. He spoke to me of his home, & his mother, and asked me to read the 43rd chapter of Isaiah, which she had marked in his Bible. I spent the greater part of the morning talking and reading with him. Mr. Wood called in 3 or 4 times during the day, & at 9.30 p.m. I found him there again. Mr. Norman had also been in just previously. He was still sensible & requested to see Dr. Howard again, in consultation with Dr. Simpson, the attending Physician to the smallpox Hospital. After 11 o'clock he began to sink rapidly, & asked me not to leave him. He did not speak much, but turned round at intervals to see if I were still by him. About 12 o'clock I heard him muttering some prayers, but could not catch distinctly what they were—'God the Father, Son and Spirit.' Shortly after this he turned round and held out his hand, which I took, & he said quite plainly, 'Oh thanks'. These were the last words the poor fellow spoke. From 12.30 he was unconscious, and at 1.25 a.m. passed away, without a groan or struggle. As the son of a clergyman & knowing well what it is to be a 'stranger in a strange land' I performed the last office of Christian friendship I could, & read the Commendatory Prayer at his departure.

Such my dear sir, as briefly as I can give them are the facts relating to your son's death.

Thirty years almost to the day after this letter was written, the newly appointed Regius Professor of Medicine in Oxford chanced to meet at dinner a Lady S——, who, attracted by his name, said that she once had a young brother who had gone out to Montreal and been cared for during a fatal illness by a doctor named Osler, who had sent a sympathetic letter that had been the greatest possible

solace to her parents : that her mother, who was still living in the south of England, had always hoped she might see and talk with the man who had written it. Later, on his way to Cornwall, Osler paid a visit to this bereaved mother, taking with him a photograph of her boy's grave, which he had sent to Montreal to obtain.

School had opened the first of October, with many changes in the Faculty, and the 'Introductory Remarks' of the newly appointed Professor of the Institutes of Medicine were duly published.¹ He said in part :

. . . In this spirit [of reforms in medical teaching] the course you are about to begin has been inaugurated. An opportunity will henceforth be afforded to the students attending this School of becoming practically acquainted with the use of the microscope in physiology and pathology ; and I may venture to congratulate McGill College as the first in this country to offer such a course, and in so doing to be the first to conform in all respects to the requirements of the College of Surgeons of England which demand that such shall be provided. . . . The first essential in a course like this is a proper supply of good microscopes, every student must be furnished with one to enable him to follow out the demonstrations with any degree of satisfaction. These have been obtained from Dr. Hartnack of Paris and Potsdam, and are the same as are in use in the chief laboratories of Europe. . . .

He concluded with the hope that the course, thus newly inaugurated, contained merely a promise of still better things—a properly equipped physiological laboratory to be under the superintendence of a well-trained assistant. One thing he failed to mention, namely from what windfall Dr. Hartnack of Paris and Potsdam was some day to receive payment for the instruments ordered the preceding April. Apparently in this same month Osler changed his rooms from Radegonde Street, opposite the old Haymarket, and moved up to 26 Beaver Hall Hill, where he took quarters from a man who from his looks was known on the streets as 'Don Quixote', but with whom he had some common interest, and of whom he has left this story :

On leaving Berlin, December 1873, while ordering Virchow's *Archiv* at Reimers I saw on the desk the prospectus of Schmidt's Shakespeare-Lexicon, which I asked to be sent to me as soon as

¹ *Canada Medical and Surgical Journal*, Oct. 1875, iv. 202.

published. In October 1875 I moved from Victoria Square up Beaver Hall Hill to rooms with Mr. King an Englishman, employed in the Custom House, who had but one thought in life—Shakespeare. He had an excellent library in which I very often spent a pleasant hour. He was a dear old man, much esteemed, and always ready to spend more than he could afford on his hobby. One afternoon at the College, just before my lecture, the postman left on the table a parcel from Reimers and to my delight it was Schmidt's Concordance, which had really been forgotten. My first thought was: 'How happy Mr. King will be to see it.' I looked at it hurriedly, but with much anticipatory pleasure. On my return to the house, Mr. King who had just come in, was sitting by the fire and greeted me in his cheery way with: 'What's that you've got?' 'Something that will rejoice your heart,' I said, and deposited the work in his lap. The shock of the realization of a life-long dream—a complete concordance of Shakespeare, seemed to daze the old man. He had no further interest in me and not a word did he say. I never again saw my Schmidt's Concordance! For months he avoided me, but helping him one day on the stairs, my manner showed that Schmidt was forgotten, and he never referred to it again. The work went to McGill College with his Shakespeare collection. When in the Library in 1912 I asked for the first edition of Schmidt and was glad to see my book again after nearly forty years. This story is written on the fly-leaf as a warning to bibliomaniacs!¹

In October Father Johnson paid to Osler a long-deferred visit, which must have served to clear up some of his misgivings regarding his favourite pupil's supposed unorthodoxy. However, a subsequent letter to his son shows that Principal Dawson's views on life, past, present, and future, had at least been too much for him. He evidently stayed with the Francis cousins, at whose house Osler and his friends were constant visitors; and he appears to have carried home with him from Montreal one of the precious Hartnack microscopes.

From W. A. Johnson to W. O.

The Parsonage, Weston,
19 Oct. 1875.

My dear Osler,—I enclose my cheque. My bad business habits made me delay longer than I ought. I find the instrument all I could wish. Have not adjusted the polarizing prism yet, but when Potter receives his consignment in all probability he will have one to imitate, & then I will send mine. My thoughts often return to you & your surroundings. I am very glad I went to Montreal. I enjoy a capa-

¹ Introduction to 'Bibliotheca Osleriana'.

bility of thinking of you all and understanding what you are doing, which I could not before. Moreover I added greatly to my friends. Your cousin Mrs. F. is a good soul: fortunate for you young man to have such a relation. 'Her hints shew meaning, her allusions care.' . . . Do, if you think of it some day, tell her how much I esteem her kind hospitality. I shall long remember it. I did not go to Montreal expecting acceptance of my person in any way. Accustomed to be looked upon as an extreme man such kindness confused me, rather than otherwise. It has taught me a lesson, which I am always practising, but have still been erring in (viz) not to judge of other people at all. Mr. Wood, too, I remember with much pleasure and can communicate freely with now if necessary. The scientific men also. Principal Dawson and Mr. Whiteve[?]. Could you not beg a bit of Eozoon Cana^a from him for me to grind. Might I venture to write him a line. I want to know about his sporangites, they are very curious. Your high power shews spines on them clearly. I want to know if he has written anything 'in re' & where. I am ashamed to trouble him and ashamed also to remain in ignorance. The specimens you gave me are quite a treat. They got home all right. If you are acquainted with a botanist in M. ask him to name the three ferns we found on the mountain, the small one, the middle sized (both left with M^{rs} F.) and the large one. You will be glad to hear I am much better of my trip. I was not well all summer before I went away. My love to Jimmie when you see him. Remember me most kindly & thankfully to M^{rs} F., & with best wishes for yourself spiritually & temporally, believe me,

Ever your very affectionate friend,
W. A. JOHNSON.

However much Johnson may have longed to get at Principal Dawson's sporangites, in a letter written a few days later to his son he expresses little regard for his writings, particularly his 'Earth and Man'. 'Doubtless he is a good geologist [he adds] and knows fossils, but his reasonings, particularly his religious interminglings, are worse than useless. It is to be lamented that all Geologists do not at once give up observations on Theology.' There was much more of this; but what is of greater importance just now is a fact mentioned in the letter, that his recent hostess, Mrs. Francis, had come down with a prolonged febrile attack. Of this illness Osler keeps her sister informed:

To Miss Jennette Osler from W. O.

Tuesday.

Dear Janet, Marian continues but poorly, but nothing definite can yet be said of the nature of her illness. Fever is the chief symptom,

though it has never yet been high. She is easier than she was & takes plenty of beef-tea and milk. Her spirits are good. If it is to be Typhoid it will in all likelihood be a very mild case. Howard is looking after her with me & tomorrow if any decision is arrived at & you are wanted I shall telegraph. The children keep well. Beelzebub is Beelzebub, and if for nothing else than to restrain his iniquities your presence would be acceptable. Gwyn is beginning to talk quite nicely and says 'Ope' 'Yes' and 'More', the latter word especially; the daughter of the horseleech could not have been more insatiable. I look after Marian at night, running up & down at intervals, & taking a nap on the chair or couch. She is a good patient and no trouble. . . . I hope you received my letter of Sunday. I should have written yesterday, but had a hard day and neglected it till too late. Love to all. Yours &c WILLIE.

The recipient of this note, Osler's favourite cousin, was not a person to hesitate on receiving such news, and on hearing that her sister Marian was really ill, and realizing that she could be of use, she packed up instantler and left Toronto to join the Francis household, where, as she adds, she stayed for the next sixteen years. She has given this note of W. O.'s relation to the household :

While we were living in Montreal Willie was a frequent visitor, especially during his later student years and his professorship. We were then living on McGill College Avenue and he would look in almost every afternoon for 5 o'clock tea with Marian and the baby and dowager baby—successively Brick, Willie, Gwen and Bea—this explains the interest and affection he has always shown for them—not so much for Brick who was always my special boy and who usually preferred to stay with me and the other elder children. He was like a breezy boy when not at work, would leap over the dining-table, dance, play tricks on the elder children, join in the rough-and-tumble pranks of the boys, sing, toss the babies (of which there was an unfailing supply) and pet and comfort the little girls and any small invalid. He was my dearest friend as well as cousin; we studied German together for a time, but the children left me little leisure or quiet and he very soon distanced me. He was the Well-beloved of the whole family and Willie F. adored him from his babyhood. He went regularly to church (St. John the Evangelist) and spoke of things religious with unfailing reverence.

Reference has been made to his interest in old people, but this was more than equalled by his devotion to children, with whom he had the rare gift of putting himself immediately on terms of intimate familiarity. On first acquaintance

he would coin unforgettable nicknames for them : one with curly hair and another with wide-open eyes remained always as ' Bedsprings ' and ' Owl's Eyes '. He appreciated, too, a child's delight in repetition, so that vaulting the dining-room table at the Francis's was always demanded of him ; and his pranks with children, some of which became proverbial, will in time be referred to. But all his life he was a great hand to drop in upon people informally for brief visits—all too brief for their recipients. In an article written long afterwards, in which he had occasion to speak of the malady that affected his friend and colleague, George Ross, he says : ' As a young man in Montreal there were two doors I never passed—47 and 49 Union Avenue : going up I called on Dr. Palmer Howard, and if he was not in or was engaged I called on Dr. George Ross ; going down, the reverse. Any growth in virtue as a practical clinician I owe to an intimate association with these two men, in whom were combined in rare measure enthusiasm and clear vision.'¹

With his advent successively in Montreal, Philadelphia, Baltimore, and Oxford, a period of unusual activity of medical societies, of student gatherings, and of literary production immediately set in, largely from the example of his own whole-hearted participation and his unusual popularity. Soon after his return to Montreal in 1874 he had taken an active part in revivifying the old Medico-Chirurgical Society ; was immediately put on the Programme Committee with Roddick and Gardner ; and for the succeeding ten years was a regular attendant at the monthly meetings. Most of the clinical papers emanating from the Montreal General were first presented before this society, and there was hardly a meeting² in which he did not participate in some way or another. Until the time of his own appointment on the hospital staff, even the brief clinical papers, medical or surgical, written by others, were usually supplemented by a pathological note, ' By Dr. Wm. Osler ', describing the tissues—a note which often contained, it may be added, the only portion of the communication at all original. It was a new thing for the profession to

¹ *Canadian Medical Association Journal*, Oct. 1911, i. 919.

² Cf. records of these meetings in the *Canada Medical and Surgical Journal*, 1874-84.

have a histological pathologist in their midst. Easily enthused himself by every novel condition, he infected all others with whom he came in contact with something of the same spirit, and as he worked for work's sake alone and cared more for giving others credit than for what he might gain, his reputation spread widely, and soon went beyond his own community.

Another trait which had much to do with his development was his utter lack of Chauvinism. Though at this time there was much less inter-communication between men of different schools in different localities, he took an early opportunity to run down to Boston and to familiarize himself with its medical traditions. There he not only looked up all his old Vienna friends, but invaded the Boston Medical Library, then in its original humble quarters, where he found a hard-working librarian, Dr. Brigham, little accustomed to have this kind of sunshine invade his seclusion. The charm of the visitor was never forgotten, nor did Osler on his part fail, as will be seen, to remember this chance acquaintance in the years to follow. He must have paid a call also at this time on Henry I. Bowditch, the leader of the Boston profession, whom with reason he greatly admired. There remains a bound pamphlet in Osler's library (Bowditch's 'Consumption in New England', 1862) in which he has written: 'Henry I. Bowditch was one of the finest characters I have ever met in the profession, with the true fire. I valued his friendship highly. I met him in 1875, and he introduced me to his nephew H.P.B. who became one of my dearest friends.'¹

But with all this, it must not be forgotten that he had been hard at work in the smallpox wards, supposedly an immune, for though repeatedly vaccinated he had never had a successful 'take', and it is evident that meanwhile he mingled freely with friends and relatives. It was in this month of December, as near as can be told, that he came down with the disease himself, and in years to come he always cited his own case to illustrate the fallacy of the 'non-take' belief as an evidence of immunity which prevailed at that time.

¹ Cf. foot-note, Vol. II, p. 133.

CHAPTER VII

1876-7

THE PATHOLOGIST

AFTER prolonged agitation a community smallpox hospital was finally provided for Montreal early in 1876, and it is probable that Osler was the last to take charge of this dangerous service at the Montreal General. His own attack, contracted the preceding month, proved luckily to be a mild one, as shown by the following note to Arthur Jarvis, one of his old schoolmates :

Jan [1876].

My dear Arthur, I have just received your very kind letter and am happy to be able to write in return that I am completely convalescent. My attack was a wonderfully light one the pustules numbering sixteen, all told, and of these only two located themselves on my face ; so that ' my beauty has not consumed away '. I have been out of Hospital now a week and am regaining my strength rapidly. The disease has been and is very bad. You need not be afraid of this letter. I will disinfect it before sending. Ever your aff. friend W. O.

The smallpox ward, nevertheless, not only had given him a chance to show his worth as a hospital attendant, but the remuneration of \$600 for his services proved a boon which enabled him to meet the obligation entered into the preceding April—' In account with Hartnack, Paris. A batch of 15 microscopes. Net price frs. 2107.50.' His 1876 account-book shows a scarcity of entries : consultations, few and far between, and an occasional group of house visits are noted, with ' Howard laid up ' written opposite them as an apologia. He was still in his small room on Beaver Hall Hill at a rent of \$10 a month, boarding meanwhile elsewhere at another \$20, with the occasional variation of a dinner with Arthur Browne at ' the Terrapin ' on St. James Street. His income for the year, of \$1178, including his professorial salary, tells its own story.

In February of this year he gave the Somerville Lecture before the Natural History Society, on ' Animal Parasites

and their Relation to Public Health',¹ a topic which indicates two other sources of his activity in Montreal—his naturalistic and his public-health interests. This lecture also serves to illustrate his accumulative method of assembling material for the purpose of publication, for the subject of trichinosis on which he chiefly dwelt dates back, as has been seen, to notes and experiments made while a student in the dissecting-room in Toronto. In the 1873 note-book kept in Berlin, where he had seen a case in Traube's clinic, he had jotted down: 'So far as I can learn only four or five cases of Trichinosis have occurred in Canada, one in Montreal, three in Hamilton, and two cases in which I discovered the parasite post-mortem in Toronto. Others may and probably have occurred, but have been mistaken for something else.' The disease at this time was little known in spite of Owen's and of Paget's early descriptions of the parasite; and in his paper which he sent to Toronto for publication by his friend Zimmerman, then corresponding editor of the *Canadian Journal of Medical Science*, he reviewed the subject in general, gave his own experiences, and recorded the experiments he had performed in Toronto, to which reference has already been made.

He had been elected a member of the Natural History Society, on October 26, 1874, had been put on the Library Committee in the following May, and had just been chosen as a member of the Council. Moreover, it is apparent that at this time he looked upon his medical work more or less from the standpoint of a naturalist, with the microscope always ready at hand; and some younger members of the society soon formed a junior body of a combined scientific and social character—the Microscopical Club, whose meetings were held at the residences of the members in turn. Of this he was made the first President. The Natural History Society itself was an active body whose transactions and papers appeared in a quarterly journal of science, *The Canadian Naturalist*. Principal Dawson, as previously stated, was for some years its President, and though papers presented before it represented work in many different

¹ 'Trichina Spiralis.' *Canadian Journal of Medical Science*, 1876, i. 134 et seq.

fields into which natural science has since become greatly subdivided through specialization, there must nevertheless have been much to interest Osler, and it is probable that with regularity he attended the meetings. Though one might have thought that his early biological pursuits would have been superseded by this time, they continued to occupy some of his working hours throughout his Montreal period.

Though Osler's specimens treasured in the McGill Pathological Museum testify to his industry as a collector, it does not appear that he was particularly interested in the Museum of the Natural History Society itself, which Samuel Butler, who visited Montreal at this time, described in his famous 'Psalm of Montreal'. This place, indeed, one may assume to have been not unlike those in which most natural-history collections of the period were housed, Butler having found the custodian engaged in stuffing an owl in a room to which the Discobolus had been banished :

And I turned to the man of skins and said unto him, 'O thou man
of skins,

Wherefore hast thou done thus to shame the beauty of the Discobolus?'

But the Lord had hardened the heart of the man of skins

And he answered, 'My brother-in-law is haberdasher to Mr. Spurgeon.'

O God ! O Montreal !

'The Discobolus is put here because he is vulgar,

He has neither vest nor pants with which to cover his limbs ;

I, Sir, am a person of most respectable connections—

My brother-in-law is haberdasher to Mr. Spurgeon.'

O God ! O Montreal !

It had been a time-honoured custom at the Montreal General Hospital for each member of the medical staff to make the post-mortem examinations on his own patients, but on May 1st of this year a new position of Pathologist to the hospital was created, as far as can be judged, to make proper use of William Osler, and in the autopsy-room of that institution he laid the foundation of his subsequent brilliant career as a clinician. A three-months' summer session for students was offered this year, beginning the

first of May, 'with opportunities afforded in the M. G. H. wards', and the prospectus, after stating that Ross, Roddick, Gardner, Buller, and Girdwood were to be the participants, goes on to say: 'And last, though not least, we have Dr. Osler who is an enthusiast in his department, who will give a course of twenty-five lessons in Practical Histology, and also a course of Practical Pathological Demonstrations in the post-mortem room.'

It was during this summer, therefore, that he began his more serious studies as a morbid anatomist, which were to continue almost without interruption for the next thirteen years—until he went to the Johns Hopkins. He had, of course, been greatly influenced by Howard, who fully realized the importance for the successful clinician of making his own post-mortem examinations; he had been still more influenced during his brief sojourn in Berlin by Virchow; and his familiarity with the microscope, unusual for the time, made him easily excel his fellows in modern methods, permitting the minute study of the processes of disease. But aside from all this, in unravelling the mysteries of a fatal malady he felt the same profound fascination that had kept Bichat, Laennec, and many other brilliant and industrious young men for years at the autopsy-table.

His industry became proverbial. Though he went through the form of dictating notes to student assistants in his course, when it came to completing the report it was set down in detail in his own hand. The three large quarto volumes in Montreal of these manuscript notes, with the cases numbered and fully indexed, remain a monument to his genius—his capacity for work. During the succeeding year, from May 1, 1876, to May 1, 1877, there were 100 autopsies, fully worked up. Many of the more interesting observations were from time to time reported at the meetings of the Medico-Chirurgical Society, and at the end of the year they were assembled and printed in book form, representing the first serious report of the kind from any hospital on the continent. Many of the more interesting specimens were preserved, and form the basis of the pathological collection in McGill, of which Dr. Maude Abbott has written so fully; and he came to know the material which passed

through his hands during this and succeeding years so well that he constantly drew upon it for his later writings.

It is doubtful whether anything more than a great love of the work led him to study this material in such detail; he could hardly have realized until his later years that a long apprenticeship in the pathological laboratory always has been and always will be the only way to reach the very top either for surgeon or physician—the way followed by Addison, Bright, Stokes, Paget, Fitz, and a host of others. He had, moreover, the imaginative type of mind which made him prompt to grasp the problem laid bare by whatever he touched, and with this visualization came the desire to make some record thereof. It was this characteristic, handed on in goodly measure to his pupils, that made him (and them in turn) so prolific; and in the end, owing to his abundant and well chosen general reading, he acquired a literary style admirably suited to his purposes.

It is not surprising therefore to find him reading a book so unrelated to his subject as St. George Mivart's 'Lessons from Nature'. Apparently he lent his own copy of this book to Henry Howard,¹ and sent another to the Parsonage at Weston. Father Johnson in acknowledgement of its receipt sent off a long letter, dated September 2nd, in which he says that: 'After much effort (for I fear I am very obtuse) I have managed the two first chapters. I wanted to make myself master of them, but it has all ended in a conviction that there is something which fits in uncommonly with what I "feel" I cannot say "know" to be right.' That Mivart's book was making an impression is evident from a letter written a month later by Father Johnson to his son 'Jimmie', who having graduated from McGill in the spring, was now abroad and about to take the same dangerous step Osler had taken. The letter explains his misgivings, to put it mildly, regarding his former head prefect:

... *For my part* I am glad you went to London University, though it is manifestly & I believe most intentionally an *infidel* foundation.

¹ Cf. Henry Howard's 'Remarks on Haeckel, &c.' before the Medico-Chirurgical Society, Jan. 21, 1881. *Canada Medical and Surgical Journal*, Mar. 1881, ix. 153.

It was begun (I watched it), is continued, & is intended to prosper solely by man's ingenuity, knowledge & skill. Like the rods of the magicians before Moses it will do great things, but in the end will not succeed. . . . Suffice it to say if you go there you will find many excellent opportunities you can not find elsewhere most particularly *infidel* ideas. What would I give to be well versed in such ideas: but only to disprove them in other people. Probably it is a dangerous school for you my son. Unquestionably W. Osler shews it was so to him: but there is no good without its evil, 'no rose without a thorn'. When you know this much go, & go freely, only do not accept as *true* what seems on every side to be so. Would that you had time to read Mivarts 'Lessons from Nature' & you would say 'woe to Darwin Huxley & Co.' I must close. . . .

With the opening of the autumn term Osler's course in physiology was resumed, and he threw open to the class the privilege of attending autopsies at the Montreal General where his appointment now gave him a foothold. One of his students, Dr. Beaumont Small, has given these recollections of the methods he pursued:

His demonstration course in pathology was modelled upon that of Virchow in Berlin with whom he had recently worked. The course being optional and not yet in the curriculum it was nominally for his class in physiology, but many of the seniors took advantage of an opportunity that had been lacking in former years. This class met for an hour on Saturday mornings in his lecture-room in the college. His method was to select three or four of his class to perform the autopsies during the week in the Montreal General Hospital; from these autopsies a certain number of specimens were selected for the Saturday clinic. Before the class met, the specimens were all arranged on separate trays and carefully labelled. Each specimen in turn was carefully discussed and all the important points clearly indicated. At the close of each case, questions were asked for and answered, the whole being most informal and conversational. The facts elicited in the autopsies were carefully correlated with the clinical histories and notes of the cases as taken in the wards. In order that his teaching should be of the greatest value to those in attendance he furnished each one with a written description of each specimen, and with an epitome of the remarks which he had prepared. There were always four pages and at times eight pages of large letter size, written by himself and copied by means of a copying machine; there were from 30 to 40 copies required each Saturday, so that the demand such a task made on his time must have been heavy.

Meanwhile the 'Lessons from Nature' had been finished by Father Johnson, and if he had come to read the

'Genesis of Species' by the same author, one wonders whether his reaction after all would not have been the same as Huxley's.¹

From W. A. Johnson to W. O.

The Parsonage, Weston,
19. 10. 76.

My dear Osler,—At last I have got through Mivart. I have been strongly tempted to put other things aside to enjoy his thoughts. My first feeling now is thankfulness to you for thinking of me at all, then for the kind of book you selected, what it is & what it leads to & what it has done respecting my former ideas. . . . I must read his 'Genesis of Species' if I can find it some day. Everything I see attests to evolution in some sense, but surely not *chiefly* by natural selection. The last chapter I would rather had never been added. Mivart's reverence for the Church makes him claim too much for it, at least so it seems to me. I can believe that *devout unbiased monobibliological* students from St. Aug. to Suarez & to this day if they stated a formula of creation would be compelled so to word it as to include evolution: but I do not at present believe what Mivart seems to, that the Ch. is divinely appointed or called to formulate truth, & science is to work up to it. He may not mean this. I may misunderstand him; but it seems like it. Believing as I do, what I mean is that the book of Nature & the book of Revelation are alike God's books. . . . I do not want to deny him. He may be quite right; but it does not follow as I think Mivart tries to shew, that every formula enunciated by a Pope must be correct because the Pope is divinely appointed for that purpose. I wish that the last chapter had been left out.

¹ 'For Mr. Mivart, while twitting the generality of men of science with their ignorance of the real doctrines of his church, gave a reference to the Jesuit theologian Suarez, the latest great representative of scholasticism, as following St. Augustine in asserting, not direct, but derivative creation, that is to say, evolution from primordial matter endued with certain powers. Startled by this statement, Huxley investigated the works of the learned Jesuits and found not only that Mr. Mivart's reference to the Metaphysical Disputations was not to the point, but that in the "Tractatus de opere sex Dierum," Suarez expressly and emphatically rejects this doctrine and reprehends Augustine for asserting it. By great good luck (he [Huxley] writes to Darwin from St. Andrews) there is an excellent library here, with a good copy of Suarez, in a dozen big folios. Among these I dived, to the great astonishment of the librarian, and looking into them as "the careful robin eyes the delver's toil" (*vide Idylls*), I carried off the two venerable clasped volumes which were most promising. So I have come out in the new character of defender of Catholic orthodoxy, and upset Mivart out of the mouth of his own prophet.' ('Life and Letters of Thomas H. Huxley, by his son Leonard Huxley.' 1900, vol. i, p. 392.)

Do like a good fellow try to make my peace with kind Mrs Francis. I longed to be down and tried to get down to Montreal but really it was too expensive. . . . Everything flat & calm here, from the weather to the Village. If anyone is coming up send me something interesting for the microscope. I am all alone as usual but have an invaluable woman keeping house for me. Yours very affectionately,
W. A. JOHNSON.

A tell-tale of where Osler spent his Christmas holidays appears in an obituary note¹ concerning one of his old doctor friends who died a few months later. What others would regard as needlessly taking trouble he made into a pleasure, and a volume could be written on the subject alone of unexpected but cherished visits when he brought cheer and comfort to some physician who was in trouble or laid low by illness or advancing years. In a war-time address delivered more than forty years later he recalled the day, and the scene, and its lesson, for the benefit of the young Canadian medical officers—his hearers—as follows :

On Xmas afternoon, 1876, I walked up the Galt road along the north side of the valley, and at the summit of what we called the Mountain, turned into a beautiful oak grove, in the centre of which, overlooking the valley was a comfortable old frame house with a wide verandah. Here in an armchair, wrapped in his furs, was the Nestor of the profession of the district, Dr. James Hamilton, who through me as a conductor greets you across a century this evening. In 1818, fresh from Edinboro, he had settled in this district, at first at Ancaster and in 1820 in West Flamboro, on this beautiful site overlooking the valley. To the Grand River on the south and for twenty miles on either side of the lake extended the area of his practice. And he had had a singularly successful life, for he was a hard-headed, good-hearted Scot, equally careful of his patients and of his pockets. On the visits to my home, both as a student and a young doctor, I had been in the habit of calling on the dear old man—I have always loved old men!—and I enjoyed hearing his anecdotes about Edinboro in the palmy days of *Monro secundus* and of his early struggles as the pioneer practitioner of the place. This time I saw that he was hard hit, with the broad arrow on his forehead. He spoke pathetically of his recent losses, of which I had not heard, and quoted the well known verse beginning, 'Naked came I, &c.' The scene made an enduring impression. The veteran after sixty years of devoted work, beaten at last by a cruel fate. Call no man happy till he is dead! He had been an exceptionally prosperous

¹ *Canada Medical and Surgical Journal*, 1877, v. 478.

man. One of the founders of the Canada Life, Surgeon for years, and afterwards one of the Directors of the Great Western Railway. The savings of a lifetime had gone in *mills*! He died in March 1877.¹

Whenever possible during all this time he made what progress he could with his zoological studies, and on January 29th his long-deferred paper on the 'Canadian Fresh-water Polyzoa' was read before the Natural History Society.² He refers therein, as already stated, to his researches with Johnson in 1867, and to those a year later when a student of botany with Professor Hincks at Trinity. He apparently had given the paper scant preparation, for the next day he wrote his cousin Jennette: 'I have been suffering from the dire effects of procrastination and in consequence have determined to eschew that vice forever and aye. I had a lecture to give on Entozoa at the Veterinary School on Saturday evening, which was not begun on Friday morning. Last night I read a paper on the Fresh-water Polyzoa at the Natural History Society, which was prepared—well, between Saturday evening and Monday at 7 p.m.' One might assume that he had already spread himself thin enough, but this letter to his cousin gives occasion to refer to still another contact he had made. It will be recalled that while in Toronto he was wont to visit veterinarians in connexion with his study and tabulation of animal parasites, and it is evident from the titles he first uses at this time ('Professor of Physiology in the Veterinary College, Montreal' and 'Vice-President of the Montreal Veterinary Medical Association') that his interest in comparative pathology was still sufficiently alive to have induced him to ally himself with this other school.³ Accordingly on January 27th he had lectured at the

¹ 'The Future of the Medical Profession in Canada.' 1918 (unpublished).

² This paper for some unaccountable reason was not published till five years later in the *Canadian Naturalist*, 1883, x. 399-405.

³ The veterinary students attended the lectures of Dawson on botany, Girdwood on chemistry, and Osler on the 'institutes'. Subsequently the Veterinary College, which had been purely a private venture, became officially a faculty of McGill and on Osler's suggestion was named 'The Faculty of Comparative Medicine'.

Montreal Veterinary College and was somewhat apologetic for his lack of preparation, though the subject was at his tongue's end.

Several papers on comparative pathology were published during the next few years. In the first of them,¹ read before the Veterinarian Association on March 29th, he described a form of bronchopneumonia in dogs due to a previously unknown parasitic nematode. This he incorrectly named, having mistaken its generic identity, and it was subsequently renamed by Cobbold in 1879 the *Filaria Osleri*.² He theorized regarding the mode of infection, and probably lack of time prevented him from subjecting his view to the experimental test. Of his other papers on comparative pathology, the more important dealt with hog cholera, echinococcus, bovine tuberculosis, and the parasites in the Montreal pork supply. Until his last days Osler kept in touch with Duncan McEachran, even though their lines of work greatly diverged; and it is perhaps noteworthy that only a year before his death he wrote a review of General Mennessier de la Lance's 'Essai de Bibliographie Hippique', a volume which had come to his attention. In the last paragraph of the article which appeared in the *London Veterinary Review*, he refers to the fact that he had been a 'former teacher in a Veterinary College' and therefore felt permitted to offer the author on behalf of the profession in Great Britain congratulations on the completion of his great work.

As in the preceding spring, so again this year he spent a week during the April recess in Boston, familiarizing himself with the Harvard Medical School, where, through

¹ 'Verminous Bronchitis in Dogs with Description of a New Parasite.' The *Veterinarian*, Lond., June 1877, i: 387. His introductory paragraph begins: 'Early in the month of January I was asked by Principal McEachran, F.R.C.V.S., to aid him in the investigation of a disease which had broken out among the pups at the kennels of the Montreal Hunt Club, and which was believed to be of a pneumonic nature.'

² Osler's original designation was *Strongylus canis bronchialis*, but the nematode has none of the characters of *Strongylus*. Indeed, despite Cobbold, it has so little in common with *Filaria* that recently a new genus, *Oslerus*, has been proposed for it. Cf. 'Two new Genera of Nematodes, &c.', Maurice C. Hall. *Proceedings of the U.S. National Museum, Washington*, 1921.

the influence of Charles Eliot in the face of strong opposition, sweeping changes in the matriculation requirements and in methods of teaching were under way in the effort to 'fix a standard of general education for the men who aspire to be her graduates'. He was accompanied this time by Ross and Shepherd, and they devoted themselves largely to a detailed study of the methods of instruction in vogue in the school. H. P. Bowditch's course in practical physiology, Wood's method of teaching chemistry, the course in pathology given by J. B. S. Jackson and his then assistant Fitz, a demonstration in surgical anatomy by David Cheever, sr., and a recitation in anatomy by O. W. Holmes were all attended and commented upon in an account of the visit subsequently written by Osler and published by his friend Zimmerman.¹ He concluded the account with the following paragraph, and it is not without portent that at this early age he had begun to show such an interest in medical education and to urge its improvement:

It is a matter for surprise that some of the leading colleges in the United States have not followed the good example of Harvard. No doubt it would be accompanied for the first few years by a great falling off in the number of students, and consequent diminution in income, and this in many instances is avowedly the chief obstacle to so desirable a step. One or two of the smaller schools have adopted the graded system and I see by a recent American journal that the University of Pennsylvania has decided to pursue it, though in a modified and curtailed way. These are indications that the medical schools in the United States are being stirred up to some sense of the requirements and dignity of the profession they teach. It is high time. The fact that a Canadian student after completing his second winter session (not even passing his primary) can go to the University of Vermont, and I doubt not to many other institutions, spend ten weeks and graduate, speaks for itself and shows the need of a sweeping reform.

He must have been well aware, though he seems nowhere to have made written reference to the fact, that at this time elaborate plans were on foot for the establishment of a large hospital and medical school under the provisions of the Johns Hopkins Trust in Baltimore. Indeed two years before,

¹ 'The Harvard School of Medicine.' *Canada Journal of Medical Science*, Toronto, Aug. 1877, ii. 274.

an elaborate volume containing the plans and specifications of the buildings which were to be erected had already been published by John S. Billings, in which statements had been made to the effect that this future school was to aim at quality and not quantity, and that the 'seal of its diploma should be a guarantee that its possessor is not only a well-educated physician in the fullest sense of the word but that he has learned to think and investigate for himself, and is therefore prepared to undertake, without danger of failure from not knowing how to begin, the study of some of the many problems still awaiting solution'. Thus was a new note sounded which could hardly have failed to reach Montreal even had not this same Dr. Billings pursued the subject by many subsequent published notes and addresses which were so numerous and which were sent out so broadcast that many people during the next few years must have believed that the Johns Hopkins Medical School and Hospital were already in full operation.

We have seen that Osler, soon after becoming established in Montreal, started among his colleagues a Journal Club for the circulation of foreign periodicals, and it was in this spring of 1877 that through his influence the McGill Medical Society was organized for the special benefit of the undergraduate students. Both of these organizations were of the same type as those he so successfully supported later on in Baltimore. Of the students' society Dr. Beaumont Small has written :

Its object, as defined by himself in his opening remarks at the first meeting on April 23, 1877, was to 'afford opportunities, which after graduating you never obtain, of learning how to prepare papers and to express your ideas correctly, while your meetings will also secure for you a training in the difficult science of debate'. Osler was its first President, but all the other officers were undergraduates and the whole proceedings were in the hands of the members. Osler, however, never missed a meeting; he joined in all discussions and customarily closed each meeting with a general review in which he combined much criticism and suggestion. A literary character was often imparted to the meetings by the reading of short selections from notable authors ranging from Shakespeare to Dickens.

During the summer session, up to July 17th, weekly meetings of this novel society were held and on the re-

opening of the school in the autumn they were resumed with a fortnightly interval. Indeed during the short summer session from May to July there were a number of supplementary and extra-curricular courses offered to the students which were entered into with vigour and enthusiasm by the younger members of the Faculty: one of them, Osler's special course on 'The Microscope in Medicine', which grew in later years into the regular prescribed course in clinical microscopy now adopted by all schools, was the most popular of all and the fee of \$15 from each student doubtless added considerably to his meagre income.

A month's vacation later in the summer was passed at Tadousac at the mouth of the Saguenay, where he acted as the hotel physician, taking the place of Arthur Browne, who having served in this capacity the year before had expected until the last moment to return. The Governor-General, Lord Dufferin, had his summer residence there, and as the Government wished to have a dependable doctor near by, one or another of the younger McGill Faculty members volunteered for the position. The incumbent was given his board, picked up what practice he could in the summer colony, attended the Governor's family in case of need, and incidentally made pleasant acquaintances.

From W. O. to his cousin, Mrs. Francis.

Friday, 9 a.m.

My dear Marian, I am rapidly getting too stout for my clothes and by the time my two weeks are out I expect to be of the build of a friend at—n.s.w. There is absolutely nothing to do here but loaf and eat and sleep. I have had no fishing yet but Robt. Shepherd is coming this evening and we will go up the Saguenay together trout-fishing. Yesterday morning was close & hot, but in the evening a cold fog came up, making such a change. Mrs. Ogilvie I find a pleasant little woman. I went for her last evening to the Urquharts who have a nice house here. Mrs. Howard and her bairns keep well, though little Muriel is rather cross & shy among the other children. Two very agreeable American girls—Bostonians—arrived yesterday and we have struck an acquaintance. One of them in particular is very jolly. I had to lie, in my usual accomplished style, when she asked me if she spoke like an American. I replied unblushingly that her accent was rather like the Midland counties, and delightfully English. The 'varries' betray her, more than anything else. The only patient I have had was a poor French child with inf. of lungs following whooping cough—which is very prevalent among

the natives. There are not many people at the Hotel. Monsig. Conroy [?] arrived last night creating quite a sensation in the village. It turns out that the Rev. Mr. Higginson—Lord Dufferin's Tutor, was curate at West Flamboro some 18 years ago. He saw my name in the book and called. I have a faint recollection of him. I have got one or two nice things for the Microscope, but there are not many animals about. The water is fearfully cold. I made up my mind for a dip this a.m. but the tide was out too far. I wish you and Jack were here & the other chickabids. It is such a nice place for children. . . . Love to Jennette & the chicks. Your affec coz

WILLIE

On the memory of an American girl whose 'vurries' betrayed her is left a lively recollection of a young man of rare charm and gaiety, which however is not particularly apparent in a rather devout note which she has tenderly preserved, and which announces the sending of a little volume to recall the pleasant memories of Tadousac, which 'should have been sent before, but there has been an unavoidable delay in getting a copy, as our "Proper Lessons" differ from those in use in the Protestant Episcopal Church in the United States'.

The annual meeting of the Canadian Medical Association was held this year in Montreal, September 12th-13th, and as Chairman of the Committee of Arrangements he had much on his hands. Nevertheless he took an active part in its proceedings, gave the report on necrology, participated in a paper on Addison's disease with George Ross, in another with John Bell on pernicious anaemia, and responded at the dinner to the toast of the local profession. With the view of assuring an annual report of the society's activities, he provoked a discussion which had the customary sequel of such a suggestion, for he was promptly appointed Secretary of a Publication Committee and in this capacity edited the volume of 'Transactions' which appeared the following year. As in most thankless tasks of this kind, things get done in direct ratio to the activity of the Secretary, which in this case amounted to being Chairman as well, and on Osler's withdrawal the next year the 'Transactions' promptly lapsed. He had likewise been appointed Registrar of the McGill School, and in this capacity, on October 1st at the opening of the session of 1877-8, he delivered before the

assembled students the customary 'Introductory Lecture'.¹ It was a serious and somewhat laboured effort and, for him, a long address; for to each class of students in turn he must needs explain the several changes which had been made in the curriculum with their purport and the advantages to be derived. He bade them banish the future and live for the hour and its allotted work, quoting again his favourite line from Carlyle.

In this autumn of 1877 he abandoned his bookish landlord, the Shakespearian Mr. King, and moved into the second-floor front room at 1351 St. Catherine Street, in the house occupied by his colleague, Dr. Frank Buller, who had established himself in the ophthalmological practice to which Osler had once aspired. They were soon joined by two students. The first of them, E. J. A. Rogers, had been a Weston schoolmate of Osler's ten years before, and had made this late resolution to study medicine. He has written an engaging description, not only of Osler's recognition and reception of him after the delivery of his introductory lecture, but also of his own personal feelings, a mixture of 'resolute curiosity and suppressed horror' in being made to participate immediately afterwards at an autopsy:

Leaving the hospital we walked back to his rooms, which I was told were from that time on to be my headquarters. He was living with Dr. Buller in an ordinary built-in city house with a front and back room on each of three floors, the back parlour on the first floor being Buller's consulting-room, the front room a waiting-room, used in the morning as a breakfast-room. The second-floor front room was Osler's; the other rooms were used as bedrooms. Osler said I was to become the third member of the family. Buller acted more deliberately, and it was some little time before these latter rooms were rearranged and I was given the third-floor front as my bedroom and study. Here, until I left Montreal after my graduation, I lived all through my studentship.

Osler never did anything by halves. From those who were willing and ready to work with him his demands were unlimited, but for this he more than repaid in the opportunities and good-fellowship that he returned. I thus had every opportunity for the most intimate knowledge of all his mental and physical activities. Soon I found that through his whole-heartedness his friends had become my friends, but not, of course, through any virtue of mine: his pleasures

¹ *Canada Medical and Surgical Journal*, 1877, vi. 204-10.

and joys he shared with all those about him, talking freely of all that he had on hand, for in his ebullient enthusiasm he was still a school-boy. In his course of life he was more regular and systematic than words can tell; in fact, it was hardly necessary, living in the house with him, to have a timepiece of one's own. One could tell the time exactly by his movements from the hour of his rising at seven-thirty until he turned out his light at eleven o'clock after an hour in bed devoted to the reading of non-medical classics.

His cheerfulness and equanimity were surprising. He never lost an opportunity of saying a word of cheerful encouragement. Nothing ruffled his wonderful temper. We three had breakfast together at eight o'clock. The only impatience I can recollect his ever showing was when the housekeeper was a little tardy in putting our breakfast on the table. . . .¹

This 'housekeeper', it may be interpolated, was an elderly Englishwoman named Cook whose husband was a labourer of sorts. The janitor of the medical school, who as curator of the dissecting-room came closely in contact with the medical students, was also named Cook. This Cook a few years later disappeared through natural causes or otherwise, and Osler as Registrar of the school promptly substituted the other Cook—nicknamed 'Damphino' Cook by the students—in his stead. He, and his wife who had been housekeeper at the St. Catherine Street abode, became well-known characters at McGill for the next two decades, and they did much to perpetuate Oslerian traditions among the successive generations of medical students. All medical schools appear to have 'trusties' of this kind, who more often than not are characters of real merit and wield actual power, of which Cook's familiar reference to 'Me and the Dean' was significant.

Dr. Rogers has written further regarding Osler's room and habits:

He used the upstairs front room as his study, library, sitting-room and consultation room. Here he did practically all of his reading and writing. The desk, a flat office one, stood in the middle of the room and he sat with his back towards the two windows in front. The desk and the floor about it and also an occasional chair or stand were always piled in apparent confusion with books and papers. It was his habit to bring in volumes from the library and elsewhere for

¹ 'Personal Reminiscences of the Earlier Years of Sir William Osler.' *Colorado Medicine*, April 1920.

reference upon the subject at which he was working and they usually remained convenient until the subject was disposed of. The college library at that time had a considerable number of current books and many bound volumes of old journals and he had taken complete charge of it all.

This room was not arranged for, or inviting to, patients; indeed very few patients ever came to it. He had little desire that they should come, for he seemed to have no inclination to take charge of any patient. He at that time occasionally saw patients outside in consultation with Dr. Howard and other physicians, but always as a consultant. He had no desire for a private practice and was amply satisfied for the time being with his income through the college.

Patients were a secondary consideration. A consulting practice could wait, and when access to him was finally forced as in the later days in Baltimore, they came in such shoals as finally to drive him away. But he was certainly having enough to do, so much indeed as to make a necessity of the regular habits which his house-mate Rogers has pictured. Registrar of the school; pathologist to the hospital; on the Council of the Natural History Society; participating in the clinical reports of many of his colleagues by adding a pathological note usually the most important feature of the conjoint paper; writing papers of his own; the activating spirit of the Medico-Chirurgical Society; translating foreign medical articles for Fenwick's journal; editing the *Transactions of the Canadian Medical Association*; preparing for his elaborate pathological report; and with all this he not only kept up with his studies on the polyzoa but, as Dr. Rogers has stated, acted as voluntary Librarian for the medical school, as an advertisement of the time in the *McGill University Gazette* indicates.¹

¹ As Osler from this time until his death continued to be actively interested in one or more libraries besides his own this advertisement from the *McGill University Gazette*, 1877, lii. 49, deserves quoting. It reads as follows: 'A circular has been issued by the Graduates' Society calling attention to the smallness of the library fund, and requesting subscriptions from graduates, for the purpose of increasing the revenue of this most important adjunct to an Institution like McGill. The annual revenue of the library is now, the circular states, about \$600, and with the exception of the Redpath and Alexander collections, the books are of a miscellaneous character. We sincerely trust that the appeal of the Society will meet with a generous response from all interested in the college. It would not be

But Osler was far from being a literary and laboratory recluse, and at the proper time was as ready for play and relaxation as any other. One opportunity for diversion was at the gatherings of the Dinner Club which has been mentioned. He always took a more or less detached and non-gastronomic interest in the various dining clubs to which he belonged, and many years later he scribbled in pencil on the blank leaves of the publisher's 'dummy' of some collected addresses a list of his several 'Clubs and Dining Clubs' to which is appended this note:

Though not a Club man in the usual sense of the term, many of my happiest recollections are associated with Clubs. Not a drinker, not a billiard player, and slow to make friends, the Club served as an hotel. In '74-'76 I dined (usually with Arthur Browne) at the *Terrapin*, St. James' Street or at the Ottawa Hotel; afterwards I joined the Metropolitan Club in Beaver Hall and dined there for five or six years. We had a social club of twelve—Ross, Roddick, Rodger, Gardner, Alloway, Buller, Browne, Blackader, Pettigrew, Molson, and Shepherd—and dined once a month through the winter. There are Apician memories like those of the old surveyor in the introduction to the *Scarlet Letter*—mine, I confess, rarely last from one day to another. The calendar of my life is not rubricated with dinners, the sweet savour of which returns to tickle my third ventricle. Indeed only two do so with faithful regularity whenever I see anything specially tempting, as currant dumplings or an old-fashioned suet pudding. One Saturday morning in the mid sixties a long, lank parson arrived at the Rectory and announced to father, the Rural Dean of the district, that he had come as Incumbent of Watertown which he thought was a couple of miles away. In reality it was twelve or fourteen and I had to 'hitch up' the buggy and take him to the village. It was in the spring, the roads were awful, it was cold and raining, and he was a hungry Evangelical who persisted in bothering me about my soul. At that stage of boyhood I had not acquired a soul, and I was scared by the very unpleasant questions he asked. I had never had anyone attack me in this way before, and my parents were not the type of Xrian that could worry a growing boy with such problems. I was in

a bad idea to have every future graduate pledge himself to subscribe fifty or one hundred dollars, within four or five years after graduation, to the library fund. Almost every one could afford such a sum, and though inconsiderable when viewed separately, the contributions would make a handsome total. Let the Class of '77, which has inaugurated so many reforms in colleges, take the lead in this matter! Graduates who have not received the circular may obtain copies by addressing Dr. Osler, 26 Beaver Hall Hill, Montreal.

despair as he had reached the stage of wishing to pray for me when I saw a wayside tavern—clapboard, desolate-looking, but it had the cheery sign—I see it now—*John Ricman: Accommodation for Man and Beast*. It was half-past two and with the sensations of that hour much intensified. A nice warm kitchen, and in less than 15 minutes a meal fit for the gods!—ham and eggs, a big loaf of home-made bread—hot!—a pat of butter and a pot of green tea. 'The parson had a change of heart. The frying-pan was still on the stove, and the kitchen was still hazy with the ambrosial atmosphere. We could not resist the offer of more eggs. After more than 50 years stomach and brain combine to remember *that* as the very best dinner in their record. I delivered the Incumbent to his churchwardens and to my great relief was not billeted that night in the same house.

The other occasion recurs neither so often nor so acutely. One day Dr. Buller with whom I lived in St. Catherine Street said: 'I am not going to have an ordinary dinner at the Club—we shall have an oyster supper here instead.' It was the middle of November and the faithful Cook—remembered as 'me and the Dean' by three generations of McGill medical students—was sent to the dock for three barrels of Caraquet oysters, which in those happy days sold at about \$1 (4s.) a barrel—

Here the note abruptly ends. One could wish he had continued, but the memory of the occasion may have overcome him, for this particular club-meeting is recorded as having been a rarely festive affair. The note will serve to explain, to those who knew Osler at the table, his sentimental devotion to currant dumplings and a stodgy suet pudding, on the appearance of which he invariably burst into a Gregorian chant of exultation, keeping as nearly on the key as his unmusical ear permitted. It is perhaps worth noting that servants always adored him, nor did he ever forget them: so it was to the last, and to this day the servants at Christ Church and the Oxford Muscum speak of him with moist eyes but with a smile on their lips. His cousin Jennette of the letters—the 'little Auntie' of the Francis children—writes:

My remembrance of him as a student and a young professor is of one gifted with abounding vitality; hard-working for the love of work; prompt, alert, always cheery and always kind; thinking no evil of anyone and refusing to listen to ill-natured gossip and censoriousness. Of self-conceit or boastfulness he had not a trace; he thought for others and seemed to forget himself. The servants would gladly do anything possible for him; he had the happy knack of friendliness to

rich and poor, young and old, learned and ignorant; and what he was in character as a boy and young man he continued to be throughout his life: an out-giving, expressing nature, sympathetic and true.

The volume of pathological reports¹ representing his first year's work as Pathologist to the 'M. G. H.' up to May 1, 1877, was apparently completed for the press on December 10, 1877—at least his preface is so dated from 1351 St. Catherine Street. The bulk of the report had appeared serially during the course of the year in the local journal,² and a large number of the more important observations and rare cases had been reported before the Medico-Chirurgical Society or at some other meeting, in conjunction with the clinician who had the case in charge.³ On the title-page he quotes Wilks's statement: 'Pathology is the basis of all true instruction in practical medicine'; and the volume bore this dedication:

To my Teacher
James Bovell M.D.
Emeritus Professor in Pathology in the 'Toronto Medical School
This first pathological report from a
Canadian Hospital
is gratefully and affectionately dedicated.

¹ 'Montreal General Hospital Pathological Reports.' Montreal, Dawson Bros., 1878, 97 pp.

² *Canada Medical and Surgical Journal*, July 1877, vi. 12 et seq.

³ It is largely due to this fact that such an amazing number of titles appear for the years 1877 and 1878 in Miss M. W. Blogg's enlarged 'Bibliography' of his writings, issued in Baltimore 1921. A bibliographer is interested chiefly in dates and places of publication, whereas a biographer's concern lies with the purpose of the writing, the date and place of preparation, and delivery (a bio-bibliography); and during 1877 there were no less than forty-nine entries on this basis in his bibliography. It is impossible to give more than a general idea regarding the character of most of these contributions. Their chief value, as is true of the writings of most young men, lay in the personal training which the author received thereby, and throughout the rest of his life he continued to draw upon, and to make reference to, his pathological observations of these early years. Some of the studies were unquestionably important, and some of the observations original, but he was a person who always took the greatest pains to point out priority of observation on the part of others and rarely if ever made any claim in this respect for himself. The more important of the studies were doubtless those upon the anaemias, those upon aneurysms, and those on endocarditis and valvular diseases of the heart. These three topics were ones which he subsequently developed and wrote upon in detail.

While at home for the Christmas holidays he paid his usual visit to Father Johnson, who was in somewhat broken health owing to an infection received during a smallpox epidemic in Weston. Johnson, missing Bovell greatly, had written earlier in the year :

. . . you observe about my Lenten Services. They were more than I can manage again. The additional work in consequence of not having a Dr to attend to small-pox cases made it necessary for me to be on the go incessantly, so many saying 'we will not keep you a moment, but do call & tell us if so & so has small-pox,' & of course everyone thought they had it. I am still overdone but getting well, and all you Drs could say of me is, Oh, he is tough, he will be well if he rests awhile, but somehow that rest awhile does not come. I am netted up, or webbed up with these poor people, & they are my children in some sense, & without knowing it they depend upon me for more than they know, & my constant habit of being found in the Vestry leads more and more to come to me about some trifle or other. The absence of a medical man with a little common sense & fellow feeling increases my work too. There is nothing noticeable hercabout. Prices high, war prospects increasing. An occasional cracked skull from too much whiskey, & on the other hand some one failing for want of a little. It is hard to hit the happy medium. . . .

CHAPTER VIII

1878-80

PHYSICIAN TO THE MONTREAL GENERAL

ON January 23rd, before the Pathological Society in New York, Osler presented the results of one of his more important studies in the domain of comparative pathology.¹ He had chanced to hit upon a most baffling epidemic disease affecting hogs, knowledge of which at the time was most meagre and for that matter still remains so, for it appears to be one of those infectious disorders due to what is called a filterable virus, that is, an organism too small for microscopic observation. A trained microscopist, a keen observer and ardent pathologist, had Osler undertaken as Pasteur did just at this time (1877) the study of a simpler disease such as anthrax, the causative agent of which even unstained is easily seen in the blood when examined under the microscope, he might in all possibility have been led to make equally important discoveries. But he had come under Bastian's rather than Pasteur's influence: he never really became an adept in bacteriological technique; and, by the time Pasteur's views had become accepted, had moved on to other fields than experimental medicine and comparative pathology—fields moreover which engrossed him completely.

Pasteur had written to Bastian in July 1877: 'Do you know why I desire so much to fight and conquer you? It is because you are one of the principal adepts of a medical doctrine which I believe to be fatal to progress in the art of healing—the doctrine of the spontaneity of all diseases.' Naturally enough the younger generation sat back and watched the tilting of these giants, and, until Tyndall entered the lists on Pasteur's side and finally Lister, English-trained youths were naturally imbued with the ideas of spontaneous generation, as Osler seems to have been when he saw the blood platelets apparently transform into bacteria.

¹ 'On the Pathology of so-called Pig Typhoid.' *Veterinary Journal and Annals of Comparative Pathology*, Lond., 1878, vi. 385. Instead of his actual title, viz. 'Professor of the Institutes of Medicine', he gives 'Professor of Physiology and Pathology in McGill University and the Veterinary College, Montreal.'

This particular epidemic among hogs, which Osler undertook to study, had originally been regarded as a form of anthrax, though latterly the view prevailed that it was the counterpart in hogs of typhoid fever in man, the bacterial origin of which was of course as yet unknown. 'Having in the course of my reading become acquainted with this unsettled state of the matter,' Osler wrote, 'I gladly at Principal McEachran's suggestion investigated a local epizooty which had broken out near Quebec in a drove of 300 hogs, hoping that by a series of independent observations the truth of one or the other of these views might be confirmed.' And in the course of his inquiry he not only studied the post-mortem appearances of the disease, but performed a few successful experiments by transfer inoculation, drawing the conclusion that the disease bore no relation to typhoid or anthrax, but that it was dysenteric in character though without parallel in human dysentery—a view sustained to-day, the term 'hog cholera' having been substituted for 'pig-typhoid'.

At this time he was still on the council which arranged for the meetings of the Natural History Society, and on February 25th under the auspices of the Microscopical Club a students' meeting was held at which he demonstrated the newer methods of microscopical illumination—a further evidence of his persistence in emphasizing the importance of the microscope in the study of disease, though this instrument unfortunately had not helped him greatly in his studies of hog cholera. However, it was well suited for investigations of the blood. So among the many pathological specimens exhibited during the spring was one on May 18th before the McGill students' society whose weekly meetings he continued to sponsor—a section of bone from a case of pernicious anaemia with the marrow showing nucleated red-blood corpuscles.¹

¹ His studies of this case formed the basis of one of his more important contributions to the subject of the blood and concerned its formation from the bone marrow. It was subsequently published *in extenso* in German (*Centralblatt f. d. med. Wissenschaften*, Berlin, June 29, 1878, xvi. 465), and was widely commented upon. (Cf. editorial, *Lancet*, Lond., Aug. 3, 1878, ii. 162.)

He had been engaged during the early spring campaigning for a clinical appointment in succession to Dr. Drake at the Montreal General—and in his account-book there occurs a long list of names and addresses of people whose support he might count upon, for this is the custom when applicants seek positions in British or in Canadian institutions. It was a distasteful procedure—this solicitation of testimonials—and it is little wonder that thirty years later, on his call to Edinburgh, he flatly refused to repeat the process, contrary to all precedent. The Board must have felt sure of their man, for it was an appointment which not only required vision but a certain degree of courage, qualities in which trustees are sometimes wanting. In the first place he was thoroughly identified as a laboratory worker in physiology and pathology, though, to be sure, with pronounced clinical interests and capabilities as shown during his period in the smallpox ward. Moreover, like many other pathologists, he was so imbued with the futility of most of the drugs in common use that later on he came to be termed a therapeutic nihilist; and fifty years ago one holding such views was far less likely to be regarded as a suitable candidate for a clinical position. Furthermore, he had not gone through the usual apprenticeship as physician to out-patients as some of the rival candidates had done. But outweighing all this, what must have influenced the Board of Governors was a petition from the students, who, having taken part in the campaign, Edinburgh-fashion, warmly favoured his candidacy. Long afterwards in his address at St. Bartholomew's Hospital in 1914 he reminisced as follows concerning this period:

Four years in the post-mortem room of the general hospital, with clinical work during the smallpox epidemic, seemed to warrant the Governors of the general hospital in appointing me, in 1878, full physician, over the heads—it seems scandalous to me now—of the assistant physicians. The day of the election I left (with my friend George Ross) for London to take my Membership of the College of Physicians and to work at clinical medicine. For three months we had a delightful experience. Murchison, whom I had seen before in 1873, was most kind and I do not think we missed one of his hospital visits. He was a model bedside teacher—so clear in his expositions, so thorough and painstaking with the students. My

old friend Luther Holden introduced us to Gee, in whom were combined the spirit of Hippocrates and the method of Sydenham. Fred. Roberts at University College Hospital showed us how physical diagnosis could be taught. We rarely missed a visit with Bastian and Ringer, and at Queen Square I began a long friendship with that brilliant ornament of British Medicine, Gowers. With my old comrade Stephen Mackenzie we went to Sutton's Sunday-morning class at the London—his 'Sunday School' as it was called—and we learned to have deep respect for his clinical and pathological skill. I mention these trivial details to indicate that before beginning work as clinic teacher I had at least seen some of the best men of the day.¹

The object of the trip, as he explains, was primarily to pass his M.R.C.P. examination, and incidentally he wished to brush up on his clinical work before assuming his new position in the autumn. This 'quinquennial brain-dusting' became a habit with him and in later years similar visits had no little influence in keeping him always in the front rank. They visited Edinburgh, where the new Royal Infirmary was just approaching completion, and they felt while there that what had come to be called 'Listerism' was not making great headway even in this northern metropolis. They attended the *conversazione* of the Royal College of Physicians, and heard Burdon Sanderson's Harveian Oration (June 26th) in which he urged young men to devote themselves to research despite the promise of no immediate reward. It was at this time that Osler first made acquaintance with two of his lifelong friends, Seymour J. Sharkey and George Savage. Sharkey had just returned from a long period of study on the Continent and, having been appointed Resident Assistant Physician at St. Thomas's Hospital, the position gave him practical control of the wards during the summer months. On finding in Sharkey a physician of their own kind, Osler and Ross took full advantage of this opportunity.

It was in '78 when Osler was studying in London, that I first made his acquaintance [writes Sir George Savage]. I was then Physician to Bethlem Royal Hospital, and I had classes for post-graduates and for other members of the profession who were not

¹ An address on 'The Medical Clinic, &c.' *British Medical Journal*, 1914, i. 10.

ordinary medical students: in fact I used to have men belonging to various professions. I used to have literary men and actors as well as doctors, who came to study what might be called the psychological side to mental disorders. Among them was Osler. I admit I did not at that time appreciate the strong individuality of the man, yet I was drawn to him at once. We also were members of the Savile Club, which was and is a London centre for scientific and literary men. At this club there was a regular table d'hôte and men talked freely to their casual neighbours and associates. There was a constant literary give-and-take which suited Osler very well. The talks in the smoking-room after dinner were eminently interesting and very far-ranging. Osler did not pretend to make any special study of mental disorder, but in after-life he used to chaffingly say that from my clinics he learned all that he knew on the subject, and that in Canada he got a reputation which he did not deserve. Then, as ever, he was bright and friendly with anyone and I never heard of a man who spoke ill or unkindly of him. Years passed and we kept up occasional correspondence, but I never found Osler to be what might be called a good general letter-writer: he would in a few words convey his meaning and did not give way to sentiment. He was, in some respects, rather like Gladstone in that he communicated his wishes or his intentions by means of postcard. . . .

Osler himself mentioned the Savile Club in connexion with the malady that carried off his dear friend Ross, the premonitory symptoms of which first showed themselves at this time;¹ and to another incident of this summer's visit in London, he referred in an address many years after when portraying the two types of students—the owl and the lark; he himself throughout his life managed to keep a very happy mean between these two extremes, though he does not say so:

One day, going with George Ross through Bedlam, Dr. Savage, at that time the physician in charge, remarked upon two great groups of patients—those who were depressed in the morning and those who were cheerful; and he suggested that the spirits rose and

¹ 'Transient Attacks of Aphasia and Paralysis in States of High Blood Pressure and Arteriosclerosis.' *Canadian Medical Association Journal*, Oct. 1911, i. 919. It was Osler's first experience with the condition which came to be called Cerebral Angiospasm, and though Dr. George Peabody was the first to call attention to the condition in a formal paper on the subject, Osler describes it in all the editions of his Text-book; and in a letter of November 17, 1912, to the *Lancet*, Lond., says: 'My knowledge of transient aphasia and monoplegia in arteriosclerosis dated from the early '80's when a dear friend and colleague had scores of attacks.'

fell with the bodily temperature—those with very low morning temperatures were depressed, and vice versa. This, I believe, expresses a truth which may explain the extraordinary difference in the habits of students in this matter of the time at which the best work can be done. Outside of the asylum there are also 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. We all know the type. What a contrast to the student-owl with his saturnine morning face, thoroughly unhappy, cheated by the wretched breakfast-bell of the two best 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 to others. But see him really awake at 10 p.m. ! While the plethoric 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—though I have but little evidence for the belief—to thermal peculiarities.¹

They attended the meeting of the British Medical Association, held this year at Bath, August 6th-9th, where possibly Osler first encountered Grainger Stewart, Jonathan Hutchinson, Clifford Allbutt, Gairdner, and William Broadbent, who were coming to be the outstanding figures in British medicine and who subsequently became his staunch friends. An account of the proceedings, forwarded by Ross for publication in Fenwick's journal, of which he was soon to become co-editor, was dated August 12th from Paris, where they must also have gone for a short time, possibly to attend the first International Congress of Hygiene, held there during the summer. It was the year, as may be recalled, of the yellow-fever epidemic in the States and Osler's public-health activities in Montreal must have made him deeply interested. They did not get back to Canada until too late in September to attend the annual meeting of the 'Canadian Medical' held in Hamilton earlier

¹ 'The Student Life', in 'Acquanimitas, &c.', 2nd ed., 1906.

in the month. Osler was still a member of the Publication Committee, and despite his labours of the previous year in editing the Transactions, no one, in his absence, had sufficient influence to win support for their continuance; nor did his attempt to revive the project by a circularized letter calling upon the 'co-operation of every intelligent practitioner' bring in enough voluntary subscribers to justify further publication.

His position as Registrar of the Medical School necessitated his being early on his job; and though a time-consuming duty it brought him in contact with the entire student body, and his unusual memory for names and faces specially qualified him for the post. Fortunate the school that could have such a one the first to meet its candidates for admission, and there is hardly a McGill student of the day who does not vividly recall his first interview. Dr. William M. Donald writes:

When I, a raw stripling, marched into his office to register in my Freshman year, he greeted my answer to his query regarding my residence with the question: 'What has become of Ephraim ——?' naming a student who lived in a small village in Ontario, which was my home. I replied that he was not coming back to college, and that unfortunately he had fallen into evil ways, and was drinking somewhat heavily. Immediately he retorted: 'Ah, Ephraim is joined to his idols.' I smiled, remembering my reading of the prophet Hosea, and came back at him with the quotation from the Second Epistle of Peter: 'The dog has returned to his vomit and the sow that was washed, to her wallowing in the mire.' Osler smiled and replied: 'Good Scripture, Donald, but rough Anglo-Saxon.' I always felt that there was a somewhat closer bond between us after this on account of our mutual knowledge of the Book of Books.

Another student of the day has written:

... There was, too, a most engaging lightness and aliveness about him, and a friendliness that we undergraduates rather took for granted, not realizing at the time how virtually unique it was, in sincerity, helpfulness and lastingness. His very walk, 'light-hearted, spring-heeled' (that's R.L.S., isn't it?) showed both the temperament and the youth. One often met him walking with books or papers under his arm, and with him, generally foreshadowed in a smile, came the greeting, always cheery and always the right one for the occasion, the place and the persons. This was entirely

instinctive and yet so noticeable that more than once it provoked the remark that he was 'among us but not of us'. Beyond that no one in Montreal, at least no one of us students in medicine, ever had so much as a glimpse of W. O.'s bright and shining place in the future medical world.

In his introductory lecture to the students on the re-opening of the school, October 1st,¹ William Gardner made the following statement :

I have to announce to you that this Faculty congratulate themselves on a most important step they have taken, in providing the means for the practical teaching of an all-important subject. For some years the Faculty have contemplated establishing a Physiological Laboratory. To-day I am proud to announce to you that that Laboratory is an accomplished fact. Under the able direction of my friend Prof. Osler we expect that this very laboratory shall be the scene of many original researches by present and future students of McGill in the unexplored fields of physiology.

Despite this 'important step' which for the first time gave the budding Department of Physiology an opportunity for development, it was not as an experimental biologist that Osler's particular bent showed itself. Of this he made repeated confessions in years to follow. But it was quite another matter when he came to enter the hospital wards as an attending physician, as he did this autumn. His belief that over-treatment with drugs was one of the medical errors of the day has been hinted at, and it was always one of his favourite axioms that no one individual had done more good to the medical profession than Hahnemann, whose therapeutic methods had demonstrated that the natural tendency of disease was toward recovery, provided that the patient was decently cared for, properly nursed, and not over-dosed. This, it is true, had been emphasized among others by Jacob Bigelow in his essay, remarkable for the time (1835), on 'Self-limited Disease'; but it was

¹ On this same date Osler was giving the opening lecture before the students of the Montreal Veterinary College under the title, 'Comparative Pathology', a report of his remarks *in extenso* being given in the *Veterinary Journal*, Lond., 1878, vii. 405. After defining pathology as the physiology and microscopical anatomy of disease, he referred to the Contagious Diseases (animals) Act of 1878 as unjust to the cattle trade and warmly advocated inspection as a protection against hog cholera, Texas fever, and so on.

the therapeutic cult of homoeopathy, contrary to its intent, that had given the actual proof. Dr. Rogers thus speaks of Osler's advent as physician in the 'M. G. H.' :

When therefore his time came to take charge of a section of the hospital, older doctors looked on with bated breath, expecting disastrous consequences. He began by clearing up his ward completely. All the unnecessary semblances of sickness and treatment were removed; it was turned from a sick-room into a bright, cheerful room of repose. Then he started in with his patients. Very little medicine was given. To the astonishment of everyone, the chronic beds, instead of being emptied by disaster were emptied rapidly through recovery; under his stimulating and encouraging influence the old cases nearly all disappeared, the new cases stayed but a short time. The revolution was wonderful. It was one of the most forceful lessons in treatment that had ever been demonstrated. . . .

During this autumn, winter, and spring, the usual succession of brief reports before the Medico-Chirurgical Society continued. There are eighteen separate titles given in the full bibliography of the period, which would seem to represent more presentations than could have been thoroughly prepared for; but his painstaking methods are sufficiently well illustrated by the report upon two examples of rare kidney tumour,¹ as an appendix to which he gave a long translation on the subject of tumours from Cohnheim's celebrated 'Vorlesungen über allgemeine Pathologie' which had just appeared (1877). So one may easily dog the trail of what Osler called his inkpot career. He was the activating spirit of the 'Medico-Chi.', and should any one wish to know how his contemporaries felt towards him, the remarks made by Henry Howard, the distinguished Canadian alienist and criminologist, on retiring as President for the year, may be consulted. For Osler, in Hunterian fashion and with an enthusiasm which was infectious, appears to have given demonstrations on topics as diverse as 'Giacomini's Method of Preserving the Brain' and 'The Heart of the Swordfish with an Explanation of the Comparative Anatomy of its Circulation'.

During all this time, lest James Bovell be forgotten, there are letters to his namesake which show not only that Father

¹ *Journal of Anatomy and Physiology*, Lond., Jan. 1880, xiv. 229.

Johnson is far from well 'because of the poison inhaled from that unfortunate small pox', but also that the church is not occupying Bovell's attention to the exclusion of medicine.

I am a most miserable recluse [he wrote], and rarely see any but the members of my own family. I am not idle but have collected a good deal towards a little Class Book on Germs in relation to Disease. But I am kept back from want of a high objective. I had just written to Beck about his 1/20th when your letter comes. Beck's is \$85 so I felt quite dispirited. Have a talk with Fred, and see if he can squeeze out 65 for Spencers Professional 1/4 which must be a wonderful Glass. I am very poor it is true, but my goodness anything to relieve this cruel monotony. As soon as the Manuscript is ready I will send it with Drawings and most of the Specimens. You see my clothing is Brian O'Lyng's, 'for I have no breeches to wear' and altho' I am obliged to Knock under to Granny and let her keep the purse I do hope somehow to contrive to get the 1/4 out of saved clothes. We have had a terrible time of it.

Bovell had become enthusiastic over the new views regarding the bacterial causation of infectious diseases, and from another of his letters it is evident that he had actually observed anthrax bacilli in the organs of animals affected with 'cattle plague'. He could hardly have known of Robert Koch's epochal paper of the year before, identifying the bacilli as the cause of the disease, but he writes to Arthur Jukes Johnson: 'Go quietly to work and without letting anybody know what you are doing examine the blood in every case of fever and pyaemia and also the matter adhering to the ligatures when you draw them out. You must get at least a 1/16th or a 1/20th Hartnack. Don't sink into a hum-drum sort of life.' Such was James Bovell, 'kept back from want of a high objective'.

From May to July of this year Osler had his first taste of instructing students at the bedside in the wards of the Montreal General; and during the next five years his teaching-time was divided between the prescribed courses in physiology and pathology during the winter session, and clinical medicine in the summer.

We worked together [he subsequently wrote¹] through Gee's 'Auscultation and Percussion', and in the ward visit, physical-

¹ 'The Medical Clinic; a Retrospect and a Forecast.' *British Medical Journal*, Jan. 3, 1914.

diagnosis exercises, and in a clinical microscopy class the greater part of the morning was spent. I came across the other day the clinical note-book I had prepared for the students, with a motto from Froude, 'the knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it, and converts itself into practical power. The rest hangs like dust about the brain, or dries like raindrops off the stones.'

In August, Ross and Molson took over from Fenwick the editorship of the *Canada Medical and Surgical Journal*, in which so many of Osler's brief papers during these past years had been published, and he soon sent to them an account of the meeting of the American Association for the Advancement of Science held on August 27th at Saratoga.¹ This he had attended in view of a circular letter issued by the General Secretary to the effect that a subsection of Physiology and Anatomy would be established at the meeting, and he must have foregathered with his future Baltimore colleague Remsen, as well as Michelson and C. S. Minot. He speaks also of Edison as the 'bogie of gas companies', and says that Edison told him in conversation that 'he believed it would be possible to illumine the interior of the body by passing a small electric burner into the stomach'. It appears that after this meeting Osler paid his first visit to Beede's, the famous Adirondack camp of his Boston friends, H. P. Bowditch, Charles and James Putnam, and William James, who 'had adapted the little story-and-a-half dwelling to their own purposes and converted its surrounding sheds and pens into habitable shanties of the simplest kind. So they established a sort of camp, with the mountains for their climbing, the brook to bathe in, and the primeval forest fragrant about them.'²

The annual meeting of the Canadian Medical Association held in London, Ontario, soon followed, and there he made a report for the Publication Committee in regard to the second volume of Transactions, stating that the Association evidently was not sufficiently advanced to justify the continuance of the effort. The project, therefore, was abandoned, but with Mullin and Sloan he was appointed

¹ *Canada Medical and Surgical Journal*, Sept. 1879, viii. 63.

² 'The Letters of William James.' Boston, 1920.

to a committee to look into the Association's financial affairs, a post for which he was far less well fitted. 'The minutes of the meeting state that: 'On the morning of September 11th, Dr. Osler of Montreal gave a description of the anatomy of the brain, illustrating his remarks by specimens preserved by Giacomini's new process.' This Giacomini whose methods he had adopted, a most extraordinary man, was Professor of Anatomy at Turin, where in his laboratory he literally lived, died, and was buried, in the midst of an amazing collection of brains. One of his paramount interests was in cerebral topography, and being a colleague of the famous criminologist Lombroso¹ it was natural that he should have made a special study of the brains of criminals, an occupation in which Osler likewise became engaged, as will appear.

There followed a visit to Hamilton, where he saw for the last time his old Barrie school friend 'Charlie' Locke, for Locke died the next spring,² leaving scant funds for his family to live upon, like many another doctor; and the burden of the education of his three children was subsequently assumed by Osler, who put one of them through the medical school. Then Dundas, Toronto, and Weston for the extensive round of visits it was his habit to make on all old acquaintances; and particularly when there were children in the house one may be sure that there was a frolic with considerable disarrangement of the nursery. The pictures would have their faces to the wall, or a pillow-fight would be promptly organized and in brief time an untidy but happy child would be abruptly left with its delighted but hysterical nurse. Dr. Adam Wright relates that Osler called at his house one morning, and finding Mrs. Wright telephoning the butcher, took the instrument from her and most violently but amusingly berated the surprised person at the other end for sending such an outrageously tough steak the day before.

Another student, on Osler's appeal, was added this autumn to the establishment at 1351 St. Catherine Street.

¹ Lombroso's 'L'Uomo delinquente' had been recently published, 1876.

² 'Charles F. A. Locke, M.D., C.M.' Obituary notice by W. O. *Canada Medical and Surgical Journal*, 1880, viii. 379.

Henry V. Ogden, a Southerner whose parents had gone to Canada after the Civil War, had been at Bishop's College School at Lennoxville near the lakes Magog and Memphremagog in Southern Quebec. He was a tall youth, therefore with schoolboy quickness of wit called 'Og, Rex Basan', and there was a school jingle concerning 'Og, Gog, and Memphremagog' which might mystify boys less familiar with the Scriptures than those attending a church school. As a first-year student in medicine, Ogden had been attending Osler's lectures, and on learning from Rogers that he was living in a forlorn boarding-house in a cheap part of the town, Buller was persuaded by Osler to have him taken in.!

... I can, and do [writes Ogden], see him perfectly as he came up to my room on the third floor of 1351 St. Catherine Street, the second or third night after I moved in. I happened to be sitting up in bed reading at physiology. He broke out at once in praise of the habit of reading in bed, but heartily disapproved the physiology—only literature, never medicine. He walked across the room standing with his back to me, his hands in his trousers' pockets, tilting up and down on his toes, and inspecting the little collection of about twenty or thirty books I had ranged on two small hanging shelves; and taking down the 'Golden Treasury' came over, sat on the foot of the bed, and half-recited, half-read, interjecting a running comment, a number of the poems. Then tossing the book to me he said: 'You'll find that much better stuff than physiology for reading in bed.' That same evening, too, he spoke of Sir Thomas Browne and the 'Religio', and probably for the first time, for I don't remember his making any reference to the subject in the lectures at the college. His enthusiasm rose as he spoke, and running downstairs he brought up his copy, pointed out and read several passages and then left me. . . .

The whole incident—W. O.'s coming up to my room, I mean—made a tremendous impression, for I had never before met a professor who struck one as so completely human, who actually liked some of the same things you did, and above all talked about them with you as an elder equal, so to speak. As you can imagine, it started my relations with him on a pleasant footing and in a pleasant direction, and naturally I have blessed my friend Rogers a thousand times for getting me into 1351.

The three upstairs tenants breakfasted with Dr. Buller, familiarly known as the 'Landlord', but otherwise they lived a life apart—a young professor and two students who became friends and intimates. Incidentally the students

were used by the professor from time to time for his own dire purposes, and Ogden one day was sent to perform an autopsy on a horse that had died from some mysterious nervous ailment. It necessitated the removal 'intact and in one piece' of the animal's brain and spinal cord, a difficult enough procedure even for one more experienced, and it took Ogden nearly all day. Not knowing how to dispose of the trophy, it being late afternoon, he took it home and proudly laid it out full-length in the family bath-tub, where it unfortunately was first discovered by Buller, who was furiously angry. Osler luckily came in in time to save from harm both specimen and student, and pacified the 'landlord' by agreeing to take the first bath.

In his reminiscences Dr. Rogers has stated that 'Osler's charity reached everyone in whom he could find some measure of sincerity and application'; that 'he had the greatest contempt for the doctor who made financial gain the first object of his work'; and 'even seemed to go as far as to think that a man could not make more than a bare living and still be an honest and competent physician'. His student house-mates remember only three consultations in his office, which indeed was hardly suited for this purpose, being usually littered with untidy evidence of literary activity. One of these consultations, however, was such an important one that preparations had to be made for it and Ogden was requisitioned as an assistant, for the patient was none other than old Peter Redpath, the wealthy Montreal sugar-refiner, who being on the 'M. G. H.' Board had hopes that the newly appointed physician might be able to cure him of an intractable lumbago. He arrived exhausted after mounting the stairs, and in due course they proceeded to treat him by acupuncture, a popular procedure of the day, which consists in thrusting a long needle into the muscles of the small of the back. At each jab the old gentleman is said to have ripped out a string of oaths, and in the end got up and hobbled out, no better of his pain, this to Osler's great distress, for he had expected to give him immediate relief which, as he said, 'meant a million for McGill'.

The first glimmering of Osler's subsequent deep interest

in matters relating to medical history and biography dates from this time, in connexion with an aged French-Canadian, a one-time *voyageur* in the service of the American Fur Company who had been accidentally wounded in the side by the discharge of a musket on the 6th of June 1822 at Michilimacinac. This accident and its consequences, and the fact that the victim came under the care of William Beaumont, a United States Army surgeon stationed at the time in this frontier post, led to the most important contributions to the physiology of digestion made during the century. Fifty-seven years had elapsed, but, according to a note in the *Montreal Medical Journal* for August of this year, Alexis St. Martin, father of twenty children, still with the hole in his stomach, was living at St. Thomas, Joliette County, Province of Quebec. It is not improbable that this note may have been inserted by Osler himself, for it was his invariable custom to tell the story of Beaumont and St. Martin when taking up the subject of digestion in his course in physiology. After doing so he usually asked the class where St. Martin's stomach should finally be deposited. A student of the time recalls that, in his year, some one shouted: 'The McGill Museum!' Osler said: 'No'. Another then volunteered, 'Ottawa', and again, 'No', when a third suggested, 'The Hunterian Museum'; whereupon Osler said: 'Can't you use your heads? The United States Army Museum in Washington, of course', and at this juncture a red-headed Irish student asked 'Why?'

This had gone on with successive classes for a number of years and it became generally known that Osler expected to hold a post-mortem examination after old St. Martin's demise. So in this spring of 1880 Ogden was told that he might have to go out to Joliette County at a minute's notice, for it was learned that St. Martin's end was near. Knowledge of Osler's intent had reached the community, which had apparently been aroused in opposition, and on the day of St. Martin's death a warning telegram came from the local doctor, saying: 'Don't come for autopsy; will be killed', and this was followed by the announcement that the grave was being guarded every night by French Canadians armed with rifles; but it was

a great disappointment to Osler, who 'had offered to pay a fair sum in case the relatives would agree to deposit the stomach in the Army Medical Museum in Washington'.¹

During this academic year of 1879-80 he had prevailed upon his colleagues at the Montreal General to issue a volume of Clinical Reports, of which he was the voluntary editor. Though customary in British hospitals, this was the first publication of the kind to be issued from a Canadian institution,² and its perusal shows that he was not only the prime mover but the chief contributor; for two of the sixteen original papers were written by him, his name appears as participant in several of the others,³ and the volume also contains a long detailed account of his second series of autopsies. These were subsequently extracted from the volume and separately published as his 'Pathological Report No. II', which contains a preliminary note stating that it 'comprises a selection from 225 post-mortems performed between October 1877 and October 1879'. Though he credits the students with much of the labour, as a matter of fact the actual autopsy records were written out in long-hand in detail by himself, possibly from the notes given to the students as bare memoranda. In the printed report, however, the autopsy note is invariably preceded by a brief account of the patient's condition during life. Many of the cases of more particular interest had from time to time been presented at one of the meetings of the 'Medico-Chi.' Society, and for this purpose probably put into some sort

¹ Osler's own brief account of the episode was given in his well-known address, 'William Beaumont. A pioneer American Physiologist', before the St. Louis Medical Society in 1902. Cf. p. 390.

² 'Montreal General Hospital: Reports Clinical and Pathological. Ed. by William Osler, M.D., M.R.C.P., Lond.' Montreal, Dawson Bros., 1880, 369 pp.

³ Thus R. P. Howard, who has the leading article, an important one on 'Cases of Leucocythaemia', states in his preamble that: 'An additional gratification is derived from the reflection that several contributions to the condition of the bone medulla in pernicious anaemia have been made within the last two years by my friend Professor Osler of this city, and it is owing to his ability, industry, and zeal, that the writer of this paper is in a condition to record the histological conditions of the bone-marrow and blood in the following examples of that interesting and obscure affection, leucocythaemia.'

of shape for ultimate publication, but the mere transcription of such a record as this in the days before the typewriter shows a prodigious energy.

During this academic year also, in addition to his physiological course, his pathological demonstrations, his hospital duties, and these two large Reports, he had published five papers in conjunction with his colleagues, three original independent papers, seven in conjunction with his students, and before the 'Medico-Chi.' had exhibited and recorded at the successive meetings which he invariably attended, thirty-five different specimens of sufficient rarity in most cases to justify their preservation in the McGill Museum of Pathology.¹ There was one noteworthy thing about Osler's career as a pathologist, both in Montreal and Philadelphia, vividly recalled and commented upon by many who then stood as students at his elbow. This was his frankness over his own diagnostic errors, for if anything was disclosed which had been overlooked or misinterpreted he particularly dwelt upon it and called every one to see. Then as regards the mistakes of others he had none of the sly delight which many pathologists have evidenced in 'showing-up' at the autopsy table the opinions of their clinical colleagues. A remarkable story is told, indeed, of how, to spare a surgeon's feelings, he concealed the truth regarding a bad operative error. When this incident was recalled by some one in his presence many years later, Osler hesitated and then said: 'He never asked me for a definite written report. In fact, no one but you and I ever knew of the unfortunate circumstance—and we have both forgotten it.'

But with all this serious attention to his real work in life, it must not be forgotten that Osler was always ready for a frolic and was fond of a jest, whether at his own expense

¹ It had been Osler's intention to issue a third volume of these Reports, as subsequent notes will show. Though he was never actually appointed Pathologist (so it is stated) at the 'M.G.H.', his official successors in the position were in turn Wyatt Johnston, John McCrae the soldier-poet, B. D. Gillies, C. W. Duval, S. B. Wolbach, and Lawrence J. Rhea. In 1895 Wyatt Johnston issued a third volume of Reports consisting largely of a bare statistical study. He states that since Osler's day there had been fifteen complete changes of management in the laboratory.

or at that of another. In 1880, shortly after Ross and Molson had taken over from Fenwick the *Canada Medical and Surgical Journal*, there appeared on the scene a creature named Egerton Yorrick Davis, soon recognized as a pathological fabricator of ill repute, whose name became coupled with that of William Osler. Among the manuscripts preserved in the Osler library there are eight sheets of note-paper containing an article which starts off as follows :

*Professional Notes among the Indian Tribes
about Gt. Slave Lake, N.W.T.*

by

Egerton Y. Davis, M.D. Late U. S. Army Surgeon.

The following notes may be of interest to the readers of your local journal, though bearing as much upon social as upon medical subjects. They are the outcome of many years' intercourse among the natives in the above-mentioned locality. . . .

The article, purporting to deal with some ancient tribal rites observed by the Indians of the Northwest and written in a pseudo-serious and somewhat Rabclaisian vein, had been mailed to the journal office during the absence from town of Ross, the senior editor, and soon after Molson's appointment as co-editor. Accepted by Molson as an authentic communication, it was forwarded to the Gazette Printing Company to be set up for publication. This printing office used to be frequented by Osler, who scribbled across the manuscript on its being returned with the galley-proof to the journal office : 'Joke on Molson. W. O.' Molson had his revenge a year later.

This man E. Y. Davis, who was first heard of at Fort Desolation in the Great Slave Lake district and subsequently moved down to Caughnawauga, a hamlet across the river from Montreal, had an interesting and somewhat varied life ; and so far as is known he was the only one of Osler's early Montreal acquaintances who in later years he deliberately endeavoured to avoid. There are many stories about him, some of them probably apocryphal, and from time to time he had a way of unexpectedly bobbing up without proper introduction, to the mystification of the uninitiated.

Doctors as a class are notably gregarious, but perhaps none

of his kind were ever more faithful in their attendance upon medical meetings, local or national, general or special, than Osler. To follow his footsteps ere long inevitably leads to one somewhere, and this June he was found in New York for the annual session of the American Medical Association. He wrote an open letter, for Ross to publish, describing the occasion for the benefit of his Canadian colleagues not in the habit of attending American—scarcely their own—society meetings; and though it is hardly in his best vein he mentions the registration of 800 members, then regarded as phenomenal, and also the organization under Abraham Jacobi's leadership of a new Section to deal with the diseases of children.

After the close of the summer session, August was passed in an excursion for his almost-forgotten fresh-water polyzoa, and together with Ross he probably spent some time at the Shepherds' summer place at Como on the Ottawa, for the three were not often long separated. Osler was a lean and somewhat shadowy person at this period, but full of fun as usual, and it was his delight to abuse an old Irish house-keeper of Shepherd's by calling her the 'hypotenuse of a right-angled triangle' and using similar terrifying epithets until she had retreated to her proper regions, audibly chuckling that 'that skinny yaller Doctor Rosler would be the death of her yet'.

Early in September came a meeting in Ottawa of the Canadian Medical Association, of which at the time Palmer Howard was President, and Osler as usual took an active part in the proceedings. He read an important paper on spastic spinal paralysis, gave a report on the progress in pathology, and it is characteristic to find him proposing at the business session: 'that the time devoted to the reading of any paper, except addresses on special subjects which at a previous meeting had been assigned to a member, shall not exceed thirty minutes'. There were two human frailties which perhaps irritated him as much as any others—one of them was unpunctuality, the other was garrulousness; and it was one of his common sayings to students that punctuality and brevity were primary requisitions of a physician and might ensure success even with other qualities lacking.



THE YOUNG PROFESSORS
WILLIAM OSLER, F.J. SHEPHERD AND GEORGE ROSS
Montreal, circa 1878

The new physiological laboratory of which Gardner had given promise to the students the year before was ready for occupancy in the autumn, and Osler in describing it¹ could hardly have failed to have uppermost in mind Bowditch's ample space and abundant apparatus at Harvard. It was merely the conversion into a laboratory of three small lecture-rooms of the medical building; but it was a forward step, for he confesses that for six years he had used 'the practical chemistry laboratory for the Saturday demonstrations and the students' waiting-room in the summer session for the histology classes'. He enumerated, piece by piece, the equipment he had been able to gather together, including, besides his eleven Hartnack microscopes (the twelfth appears to have gone to Johnson) and three microtomes, a kymograph and other things commonly found in a physiological laboratory of the Ludwig-Kronecker type with the use of which he was less adept. He was unskilled in the setting-up of apparatus, his physiological training with Sanderson having been of a different sort from that received by Bowditch and the innumerable other pupils of the Leipzig School under Carl Ludwig. For in Germany the microscope was primarily the research instrument of the anatomist and pathologist rather than of the physiologist as in England; and years later in a letter to W. G. MacCallum he confessed:

. . . I followed the line of least resistance. There was always technique enough to do a good p.m., but never enough to handle complicated apparatus. I never could get my drums and needles and tambours to work in harmony. After all, it makes a good basis for the hard work and for the teaching of bread-and-butter medicine to medical students.

More to his taste were medical and public-health questions, and in December of this year he was made a member of a committee, together with two others from the Faculty of Medicine of Bishop's College, to investigate an outbreak of typhoid fever which had occurred at Bishop's College School, Lennoxville.² It may be recalled that in 1880 Eberth had

¹ *Canada Medical and Surgical Journal*, Nov. 1880, ix. 198.

² This led to an elaborate report, signed Jan. 21, 1881, dealing with the sanitary conditions at the school, which were far from the best. Cf. the *Canada Medical and Surgical Journal*, Feb. 1881, ix. 433.

only just isolated the typhoid bacillus, and the methods of its cultivation had not as yet been perfected, so that had the discovery been known and the relation of the bacillus to the disease been widely accepted it could hardly have been utilized at this time. In conjunction with the committee's report, an editorial appeared in the local journal, entitled 'Does Typhoid Arise Spontaneously?' And it is not unlikely that Osler, too, may have been influenced at this time by the opinion of Murchison, Flint, Pepper, and others who believed that the poison might be generated independently and not merely passed on from a previous case. The chief interest, however, in this episode lies in the fact that Osler was chosen to serve on a committee with members of the faculty of a school which, having a medical department of its own, regarded itself as a rival of McGill; and to pass judgement on a public-health question which chiefly concerned a dependency of this other institution.

This year of 1880 bridged the last days of the two men whose influence on Osler's life had been greatest. For a year or more Bovell's concern about Johnson's health had been expressed in numerous letters, but Bovell himself was first to go—on January 15th in his seventy-fourth year, a few days after a paralytic stroke. On December 29, 1880, the Rev. W. A. Johnson died, in his sixty-fifth year—much beloved despite his faults. Not long before, he had written to his son, Bovell's namesake, these words of his boyhood in England:

... I remember Greenwich & Lewisham well. Bromley Hays Common & a little bit further to a village called 'Down'. You may go & see my old home. It was then called 'Down House', *The House* of the neighbourhood in those days. Some of the oldest croncs in the Village would soon tell you all about Colⁿ Johnson &c. These English peasants do not move much: & that village is so situated as not to be cut up by Railways. You had better take a horse and ride over there some day. Tell me how the old Ch. is. Drummond was the Priest in my time the lowest of the low. The Hendersons are at Seal too I believe. See the old Roman trenches at Mr. Wards park & on Hays Common. The ponds called 'ravensbourne' said to be so called because a raven was seen drinking there w^h led to the discovery of water for Caesar's men. Those chalk hills are interesting as well as magnificent.

I expect a long account one of these days. Lewisham is no longer long, lazy, lousy Lewisham as Geo. IV called it, I suppose. I remember a very nice stream running through it on the left hand as you go from Bromley to London. Hundreds of times have I ridden and driven through it. Further down near Chiselhurst and Farnboro & over the hills to Seven Oaks is the beautiful country. Said to be the Garden of Eng. How I have made the horse hoofs patter over those hills as a boy. Fine hunting in those days, they used to throw off at Farnboro: and a stag has been known to run for the coast from there. O how I would like to set foot on those pleasure spots of my youth once again but *cui bono*? It is only the natural man & the less he has that gratifies & indulges him the better. Still methinks it would cause my heart to bound with thankfulness but there is plenty here to be thankful for. Write long descriptions like a good fellow when you get time. . . . The Lord prosper you. . . .

For four years 'Father' Johnson had been far from well—ever since a serious smallpox epidemic in Weston during which he had volunteered as a public vaccinator, having, it is said, on one day alone vaccinated the two-hundred employees of the Weston Woollen Mills. It is not clear whether he actually contracted a mild form of the disease himself, but if so he was less fortunate than Osler had been. The coroner's statement reads as follows:

County of York; Division Yorkville.

Death Certificate of W. A. Johnson.

Septicaemic Lymphadenitis contracted in Weston in handling a dead body infected with Black Small Pox and which all but himself and his clerk refused to touch.

CORNELIUS JAMES PHILBRICK.

Dec. 29, 1880.

Johnson lies buried in the churchyard of St. Philip's, Weston; Bovell in that of his parish, St. Paul's, in Nevis, British West Indies.

CHAPTER IX

1881-3

LAST YEARS IN MONTREAL

It is possible that the death of his two old friends and preceptors spurred Osler to put in print the results of some of the zoological studies with which they had been so intimately associated. At the January meeting of the Natural History Society he presented some notes supplementary to his paper on the fresh-water polyzoa, read before the same society just four years before. He mentioned a species of *Cristatella* as having been found in abundance and described what he regarded as a new species of *Pectinatella*—evidently the one already mentioned which had fallen into the hands of the Rev. Thomas Hincks, F.R.S., of London, by way of his father, whose class in botany had been attended at Trinity. Moreover, during the next summer, as will appear, he returned to his old—and to some new—hunting-grounds for further specimens.

Osler frequently referred to himself as a note-book man—for he read pen in hand and was in the habit of jotting down a quotation which had struck his fancy or a thought which had come to his mind in relation to something he was composing. It was not uncommon for him, at least in later years, to write fragments of papers or addresses on a stray piece of paper or on the blank fly-leaves of a book he might happen at the time to be reading. Many of these fragments are still to be found scattered among the volumes of his library. In the copy of Alphus Hyatt's 'Observations on Polyzoa', which W. A. Johnson had given him for Christmas 1868, occur some random notes which probably formed the basis of this paper read before the Natural History Society. The first of them tells how he found the *Cristatellae* the summer before during a stay of two weeks at the country residence of Mr. G. W. Stephens at Lac à l'Eau Claire, about 35 miles north of Three Rivers. He identified them with the *Cristatella ophidioidea* of Hyatt.

He read by invitation on January 26th an important

paper before the New York Pathological Society, an organization which since its foundation in 1844 had comprised among its members the most active and influential of the local profession. His topic was Ulcerative Endocarditis,¹ and he described the presence of what he took to be micrococci in the vegetations of the valves of the heart, a finding which was received with some scepticism. So the year was punctuated with meetings in various places; with papers on most varied topics. For his second Somerville Lecture, given in March under the auspices of the Natural History Society, he spoke 'On the Brain as a Thinking Organ', suggesting a flight into psychology, with the results of which it would seem he was not sufficiently satisfied to put anything into print. Later in the same month he was delegated to attend the Cincinnati meeting of the American Association for the Advancement of Science, and the association accepted a pressing invitation to hold its next meeting in Montreal under Dawson's presidency. Nor was there any let-up in the succession of communications to the local societies—sometimes a few unusual autopsy specimens were shown; occasionally some original contributions or a partly worked-up subject was presented; and later on during the summer session a few of his more carefully prepared clinical lectures, after a personal revision, were reported by students. Whatever his other interests, the welfare of his pupils invariably came first, and just at this time the Faculty of Medicine announced that a clinical prize of a fifty-dollar microscope had been offered by Dr. Osler for the student who should pass with highest marks a special examination to be held at the end of the course.²

¹ This article was published a month later (*Archives of Med.*, N.Y., Feb. 1881, v. 44) under the changed title of 'Infectious (so-called ulcerative) Endocarditis'. Though the observations were largely confirmatory of the work of Klebs and others, it was the first important paper on the subject in American literature.

² Osler and Ross were the examiners, and 'Mr. R. J. B. Howard [Palmer Howard's son Jared] was the successful candidate, obtaining 322 out of the possible 350 marks'. It was an exceedingly thorough test, comprising: (1) a written paper; (2) a practical examination of a patient necessitating the use of the ophthalmoscope and laryngoscope; and (3) microscopical

A recently formed provincial society, the Ontario Medical Association, held its first meeting early in June. It was a movement Osler warmly supported, and an open letter sent to Ross, containing an account of the proceedings, began with the following emphatic expression of his feelings :

Sir,—That the majority of the members of the medical profession in Canada take no interest other than pecuniary in their calling, would appear evident from the half-hearted way in which the societies and associations are kept up. It seems impossible to get more than about 100 men together for any common object, and for the discussion of questions relating to the welfare of their profession or the advancement of science. Many of the men who should set a good example in this respect persistently ignore both local and general societies. Where are many of the teachers at our medical schools on the occasion of these meetings? Too often conspicuous by their absence. Not a school in the country is free from these professional drones who ought to be thoroughly ashamed of themselves. The ears of many of them must tingle if there is any truth in the old adage. When men in their position systematically neglect such plain duties how can fault be found with the over-worked country practitioners who have to make much greater sacrifices in order to attend. . . .¹

It cannot be unduly emphasized that Osler throughout his life practised what he preached in this respect, and regarded the attendance at medical meetings as one of his professional obligations, an obligation, moreover, of which he made a pleasure. In later years, when he could not go himself, which was unusual, he would send some of his assistants and pay their way in order that his department or school should be represented on the programme at least of the more important gatherings. So at this time his name appears with regularity among those present each week at the students' society; at the fortnightly meetings of the 'Medico-Chi.'; at those held monthly by the Natural History Society and by the Microscopical Club; at the Provincial meetings; at the annual gatherings of the profession of the Dominion; and finally at the international assemblies staged at longer intervals.

examination of various specimens. Cf. *Canadian Journal of Medical Science*, 1881, vi. 258.

¹ *Canada Medical and Surgical Journal*, June 1881, ix. 662.

One of the most notable of the succession of great international medical congresses was that of 1881 held in London under the presidency of Sir James Paget. Osler and R. Palmer Howard went to this meeting together, sailing on the Allan Line s.s. *Parisian* for Liverpool some time in June,¹ and at the close of the congress he sent a long account of the proceedings in the form of a letter (dated August 10) for Ross to publish.² As he said, 'the sight of above 3,000 medical men from all parts of the world, drawn together for one common purpose, and animated by one spirit was enough to quicken the pulse and to rouse enthusiasm to a high pitch, whereas the presence of the Prince of Wales and Crown Prince of Prussia added a flavour of Royal patronage which even science—republican though it be—seemed thoroughly to enjoy'. The event of the meeting was unquestionably Paget's opening address—high praise, considering the names of those who spoke at the subsequent general meetings: Virchow 'On the Value of Pathological Experiment'; John S. Billings of Washington 'On Medical Literature'; Huxley 'On the Connexion of the Biological Sciences with Medicine'; and finally Pasteur, who at the special request of the President described his recent experiments, which showed that animals could be protected 'against certain scourges' by vaccination.

Osler evidently heard these addresses, but his time was spent elsewhere: in the Physiological Section, where an animated discussion on Cerebral Localization took place in which Goltz of Strasbourg, Brown-Séquard, Ferrier, and others participated; in the Pathological Section presided over by Wilks, where the discussions on tubercle (Koch's discovery of the bacillus was not reported until the next year), on germs, on cardiac and renal disease chiefly interested him;

¹ Shortly before, at a meeting of the 'Medico.-Chi.' Society on June 10, a paper was read by Dr. Armstrong on 'Perityphlitis' describing a case in which the autopsy by Osler had shown an abscess at the head of the caecum. In the discussion, 'Dr. Osler referred to the fact that no part of the body varied so much as the appendix vermiformis. It coils in various directions and owing to its changed situations may get inflamed.' He evidently was very near to an understanding of appendicular disease. This was five years before Fitz gave his classic paper on perforative appendicitis.

² *Canada Medical and Surgical Journal*, Sept. 1881, x, 121-5.

and in the Medical Section under Sir William Gull's chairmanship, where neurological papers were read by Hughlings Jackson, Brown-Séquard, Buzzard, Erb and others. He even gave an account of the excursions, one of which was to Folkestone, where the memorial statue of Harvey was unveiled and an address given by Professor Owen.¹ All told, it was a remarkable meeting, participated in by many whose names will always occupy a high rank in medical history, the outstanding figures being Pasteur, Lister, Virchow, Huxley, Paget, Hughlings Jackson, and Charcot. But there was also a younger group forging to the front, among them a Hanoverian named Robert Koch, appointed the year before to the Imperial Health Department in Berlin.

It is apparent that Osler, like many other physicians, did not appear at this time fully to grasp as Lister did the significance of Pasteur's work, or to show great interest in Koch's remarkable contributions; and in his letter he dismissed the subject with the mere statement that 'there was an abundant discussion on germs' in the Pathological Section. Indeed the editorials in most of the British and Canadian journals of the time intimate that M. Pasteur saw germs everywhere, and his views regarding their prevalence as a cause of disease were regarded as rather horrible, if not mirth-provoking. Osler's suggestions in his paper on Endocarditis, that there might be a bacterial origin for the vegetations, was based purely on microscopical studies, for he had had no bacteriological training, and indeed the cultivation of organisms was at the time in its infancy, requiring a special technique known to but few.

At the first meeting of the 'Medico-Chi.' held after their return to Montreal, Palmer Howard went into further details regarding the lively discussion which had taken place upon 'the subject of micro-organisms and their relations to specific diseases, and especially to unhealthy processes

¹ He fails, however, to mention his own important paper before the Pathological Section, on Endocarditis, a subject he was still pursuing; nor does he speak of the sessions on comparative pathology and the fact that he was a delegate of the Montreal Veterinary Association to the British National Veterinary Congress, whose session he attended on July 20th and of whose proceedings on his return to Montreal he gave a *résumé* on October 27th at one of the fortnightly meetings of the Montreal association.

arising in wounds'. This discussion had been participated in by Lister, by Virchow, and by Bastian, to whose views on spontaneous generation reference has already been made; and finally as Howard said:¹

The great Pasteur produced a sensation by first confessing that his ignorance of English and German had prevented his following the arguments of the previous speakers; and then by exclaiming in reply to Dr. Bastian, who, he was told, held that micro-organisms may be formed by heterogenesis of the tissues: '*Mais, mon Dieu, ce n'est pas possible*,' and without advancing any argument then sat down. The eminent man for the moment seemed unable to realize the possibility of intelligent dissent from his assertion. However, in his address on the germ theory, delivered subsequently, he vindicated his reputation as the 'father' of living fungologists.²

One incident of this congress may be mentioned as it introduces a name, or names, to appear in a later chapter. Dr. S. D. Gross of Philadelphia, regarded as the dean of American surgery, who had been President of the International Congress held in 1876, had been prevented from attending in person, but sent in his stead his son, who had recently married Miss Grace Linzee Revere of Boston. They visited the Regius Professor of Medicine in Oxford, Sir Henry Acland, in whose house Mrs. Gross first saw the panel of Linacre, Harvey, and Sydenham over his mantel, a copy of which she was destined to live with for many years. She recalls that on their return Dr. Gross, sr., asked his son to give his impressions of the men he had seen, and he replied that he had heard a swarthy young

¹ Howard, R. P.: 'Some Observations upon the International Congress,' *Canada Medical and Surgical Journal*, Oct. 1881, x. 144-54.

² Possibly the most important session of this famous Congress was not attended either by Howard or Osler, viz. when so-called 'Listerism' was discussed at the Surgical Section by Spencer Wells, Marion Sims, and Volkmann the eminent German surgeon (the Richard Jeander of German poetry). Lister was beginning to feel that wound-contamination by the air was less important than he had believed, and he was on the eve of abandoning the 'carbolic spray'—a step the profession could not understand, for he was too far ahead for others fully to grasp his views. Much merriment was provoked in the lay press at the expense of microbes in general. Cf. 'The Ballad of the Bacillus' in *Punch*:

Oh merry Bacillus, no wonder you lay
Quiescent and calm when at home in your lay, etc.

Canadian named Osler give one of the best papers of the congress, and that he hoped some day they might get him in Philadelphia. This same swarthy young Canadian had returned home too late to attend another meeting, namely of the Canadian Medical Association held at Halifax early in August, and was penalized for his absence by an election to the onerous position of General Secretary to succeed Dr. A. H. David, Dean of the Medical Faculty of Bishop's College, who having held the post for many years wished to retire because of ill health and advancing age.

The Francis cousins spent this summer at Lake Memphremagog in Southern Quebec, and one may be sure, despite all these medical meetings, that the children were not forgotten by their devoted playmate. Before going abroad he had run down for a brief visit, and on his return joined them again at the lake, adorned, as a contemporary letter says: 'with an awful beard and whiskers ultimately removed because of protestations of horror on the part of the medical faculty'. He was apparently accompanied by Ogden, with whom he evidently renewed his zoological studies, as is apparent from some notes read at the November meeting of the Natural History Society,¹ one of which 'On a Remarkable Vital Phenomenon observed at Lake Memphremagog' begins as follows:

During the first week in September 1881, the water of the lake presented a peculiar appearance, owing to a number of minute green particles floating in it. In places they were so thickly crowded together that the water was of a deep green colour. Except near shore they did not float on the surface but were diffused through the water to the depth of several feet. It was suggested to me by a friend that they were pollen grains, but their diffusion through the water and the season of the year seemed against this. They looked not unlike *Volvox globator*, but I have never seen this alga in such profusion. Fortunately, I had my microscope with me and the question was soon settled. Each little green mass formed a gelatinous ball, about one-thirtieth of an inch in diameter, and enclosed numerous unbranched beaded filaments, and proved to be a Nostoc—*Nostoc minutissimum*—a minute confervoid alga met with in water and in

¹ These were read Nov. 7, 1881, 'to be published in a future number', which possibly refers to the 'Biology Notes' in the *Canadian Naturalist*, 1883, x. 251.

moist places. It is not a very uncommon species in our ponds, the remarkable point is the extraordinary profusion in which it occurred. The *Nostoc commune* is plentiful in the ponds at the Mile End, forming irregular balls the size of a horse-chestnut. . . .

On the reopening of the school in the autumn he enjoyed for the first time the luxury of an assistant—T. Wesley Mills, a promising young physiologist who had been for a year at University College and had subsequently worked under Newell Martin for a time in the Johns Hopkins Biological Laboratory. The course in physiology and practical histology was gradually being perfected, and Osler had prepared an admirable laboratory manual¹ which is prefaced by an appeal ‘To the Student’ to familiarize himself with the use of the microscope.

As a practical introduction to his subject in hand this concise students’ manual could hardly have been bettered. In those early days when the clinical use of the microscope was less familiar than now, the course Osler developed represented a great advance. Histology, as has been pointed out, in the sense he used it really covered the study of structure in the broadest possible manner, with enough physiology and pathology thrown in to give these subjects their proper bearing upon the understanding of disease at the bedside. In later years his laboratory assistants were often astonished by his familiarity with the problems in their particular field, for though fully aware of his unusual experience as a gross pathologist they were apt to forget that the fundamental principles of physiology had been almost as thoroughly mastered during his early years of teaching.²

¹ ‘Students’ Notes: Normal Histology for Laboratory and Class Use.’ Montreal, Dawson Bros., 1882.

² He was giving at this time four separate courses: *Practical Physiology* every Saturday afternoon from two to four during the winter session; *Normal Histology* bi-weekly throughout the year; *Morbid Anatomy* every Saturday morning; and his favourite course in *Clinical Microscopy*, ‘especially designed to meet the requirements of a practitioner’, bi-weekly during the summer session. An account of one of the Saturday-morning exercises which gives an idea of their character was reported by Palmer Howard’s son, then one of the students, in the *Canadian Journal of Medical Science*, 1881, vi. 350, under the title: ‘Notes of the Second Demonstration in the Morbid Anatomy Course in McGill College.’

Such communications as appeared under his name from the physiological laboratory during the next three years were purely observational, not experimental, and dealt chiefly with studies on the blood which continued to hold his interest. One of these papers, 'On Certain Parasites in the Blood of the Frog',¹ began as follows :

In my Practical Histology class, during the winter of 1881-2, while the students were working at the blood of the frog (*Rana mugiens*) I noticed in one of the slides a remarkable body like a flagellate infusorian. I thought that it was one which had got into the blood, at the time of withdrawal, from the water on the web of the foot. Meeting with examples in the slides of several other students my attention was again directed to it and I made several sketches and wrote down the following description. . . .

The parasites proved to be varieties of *Trypanosoma sanguinis*, and though the observation, as he found, was not original, for Ray Lankester had previously described them, he gave an account of the behaviour of these bodies within the blood cells in a way which indicates his alert powers of observation.²

There were few important discoveries or trends in medical science which did not at one time or another engage his attention. In all probability his interest in heredity and especially in the inheritance of disease had been aroused by Francis Galton's writings on the subject which had begun in the '70's. This had already manifested itself by the publication two years before of the first of his several papers on these topics, when he described a hereditary nervous malady occurring in the Farr family in

¹ *Canadian Naturalist*, 1883, x, 406-10.

² His three other papers on the blood which may be regarded as contributions to physiology were as follows : one of them entitled 'Cells containing Red Blood-corpuscles' (*Lancet*, Lond., Feb. 4, 1882, i. 181) dealt with the taking up of red blood-cells by leukocytes and he speaks of examining the bone-marrow of over seventy-five persons in making the studies. The term phagocytosis was not introduced until four years later by Metchnikoff, who used it in relation to the engulfing of bacteria by white blood-corpuscles. Osler had evidently observed the same physiological phenomenon. Another paper dealt with the development of the blood-corpuscles in the bone-marrow ; and the third was a note on the origin of the microcytes which he had seen separating off from the ordinary red blood-corpuscles.

Vermont.¹ In the early '80's, moreover, following the discovery by Fritsch and Hitzig of the electrical excitability of the brain there was a great wave of interest in localization of cerebral function which had encouraged many to undertake a more detailed study, of the form and volume of the brain as well as the topography of its surface, than had previously been made. Osler's interest in Giacomini's method of preserving the brain has been mentioned, as well as his flight into psychology in one of his Somerville Lectures; and he was now aroused by a recent paper (1879) by Moritz Benedikt of Vienna who had stated that 'the brains of criminals exhibit a deviation from the normal type, and criminals are to be viewed as an anthropological variety of their species, at least among the cultured races'.

Fortune favoured him, for he succeeded in coming into possession of the brains of two notorious criminals who had been executed after trials, famous in Canadian medico-legal annals, reports of which occur in the medical journals of the day. One of these individuals was Hugh Hayvern, who despite the plea of insanity was hanged for a brutal murder he had committed; the other, a poor half-witted Frenchman named Morcau, was executed on January 13, at Rimouski in Lower Canada. Osler had secured permission from the Dominion Government to attend the execution and perform the autopsy, and H. V. Ogden was sent by him as his representative with the admonition that he was to secure the brain without fail—an unpleasant task, as he recalls, for a raw young medical student speaking French imperfectly, who never having performed a human autopsy in his life was therefore in a desperate 'funk', in an out-of-the-way place and in the dead of a Canadian winter with the temperature 10° below zero.

In his paper Professor Benedikt had made certain statements regarding the prevalence of convolutional peculiarities in the brains of criminals. This finding Osler not only failed to support, but pointed out that the supposed anomalies in question were frequent in the general run of human brains. The article represented a careful topo-

¹ 'On Heredity in Progressive Muscular Atrophy.' *Archives of Medicine*, N.Y., 1880, iv. 316.

graphical study of the brains of the two homicides, but it otherwise is, for him, somewhat sarcastic.¹ He closed by saying, as 'B. B.' Osler might have done: 'One thing is certain: that, as society is at present constituted it cannot afford to have a class of criminal automata, and to have every rascal pleading faulty grey-matter in extenuation of some crime. The law should continue to be a "terror to evil-doers", and to let this anthropological variety (as Benedikt calls criminals) know positively that punishment will follow the commission of certain acts, should prove an effectual deterrent in many cases.' Subsequently an editorial appeared in the London *Lancet* taking him to task for being too severe with Professor Benedikt, and to this he replied,² clearly setting forth the reasons on which he had based his own conclusions. The entire episode is important only in showing Osler's eagerness in the pursuit of knowledge and his outspokenness of opinion. It has a bearing, too, upon some subsequent events, for it was not his last paper on cerebral topography; and when some years later the Wistar Institute came to be established in Philadelphia, he with a number of others (F. X. Dercum, Harrison Allen, Joseph Leidy, William Pepper, and E. C. Spitzka) formed what was called the Anthropological Society and agreed to bequeath their own brains for study.

Lest the recital of all these academic pursuits leave an impression of drab scholarly life without relaxation, it should be said that there was undoubtedly time for play, though of this there are fewer documentary records. Innumerable stories of the famous Dinner Club still continue to be handed down in Montreal; and at the monthly meetings which took place at the homes of the various members in succession there was great skylarking. They are mostly tales of Osler's pranks, many of which were perpetrated at Molson's expense. They are not much in the telling: at the first meeting, for example, after Molson's

¹ 'On the Brains of Criminals.' *Canada Medical and Surgical Journal*, 1882, x. 385-98. A year later he made a report on the brains of two other notorious criminals; *ibid.*, xi. 461-6. In this he adds nothing new, and merely dismisses Benedikt's conclusions as unwarranted.

² *Lancet*, Lond., 1882, ii. 38.

marriage, Osler going somewhat late to the club stopped at Molson's house and asked Mrs. Molson for a latchkey, remarking that it might be needed; they usually had some trouble in getting 'Billy' home, and as he might have to be carried in it would be convenient to have a key. An abstainer himself at this period, no stimulant was needed to make Osler the gayest of a dinner-party.

His interest in parasitology, which, as the natural outcome of his early microscopic studies with Johnson and Bovell, had led him to study and tabulate all the parasites he could identify in man and animals, was still in evidence. He rarely failed to report before one of the societies any chance post-mortem finding which had some bearing on the general subject. Thus on February 17th before the 'Medico-Chi.' he showed an example of bronchiectasis in the lung of a calf, a case of glanders, also a rare specimen of verminous aneurysm from a horse's aorta; and later in the year an example of *Amphistoma conicum* from the paunch of a cow. All this merely serves to indicate his great interest in the study of animal diseases, to satisfy which he continued to hold his position with the Veterinary School.

Throughout this year, in conjunction with one of the veterinary students, A. W. Clement, he was engaged in an exhaustive study of the parasites of the pork supply of Montreal. In their report,¹ ultimately presented before the Board of Health, January 12, 1883, they emphasized the necessity of strict governmental supervision over the sources of food supply, and of meat inspection in particular. They dealt particularly with the three more common parasites transmissible to man—trichina, cysticercus, and echinococcus—and the amount of labour expended on their studies is indicated by the statement that 1,037 hogs were examined, chiefly at the Dominion abattoir, during a period of six to eight months. When this is gauged with what was said in the section on 'Trichina, namely that in his human autopsies numbering between 800 and 900 Osler had found four cases, it can be seen that their material and experience, enabling them to draw comparisons between

¹ *Canada Medical and Surgical Journal*, Jan. 1883, xi. 325-36.

animals and man, was large. This timely investigation was of great public service and was a contribution to the health and hygiene of the community which probably had more weight as coming from a physician holding no political office than had it originated from some other source. As a by-product of this study he took up, as he had already done with trichinosis, the subject of echinococcus infections in man, this being a parasitic disease transferred more commonly from the dog to man, and a rare condition except in Iceland and Australia. On this quest he visited the museums of New York, Philadelphia, and Washington¹ in the search for specimens.

He was engaged at this same time in another piece of work of similar nature, though it pertained to a purely animal disease produced by a parasite, namely, cestode tuberculosis.² This study was also carried out in conjunction with Mr. A. W. Clement, and they recorded a successful feeding experiment with the production of the disease in the calf—an experiment undertaken to afford the students of the Veterinary College an opportunity of studying the development of the symptoms.

One of the most important discoveries bearing upon the relation of micro-organisms to disease, a subject which made this particular decade stand out above all others in the

¹ 'In 1881 I paid my first visit to the great library of the Surgeon-General's Office, Washington, to look up the literature of echinococcus disease in America, a subject in which I had become interested. At that date the Library had not yet moved from the old Pension Office and the books had far outgrown the capacity of the building. It was my first introduction to Dr. John S. Billings, at present the head of the Public Library, New York, to whose energy and perseverance the profession of the United States is indebted for one of the greatest collections of medical books in the world. He handed me over to the care of an elderly gentleman who very quickly put at my disposal the resources of the library and for two days did everything in his power to further my wishes. This was the beginning of a warm friendship with Dr. Robert Fletcher, and during the thirty years which have since passed I always found him a kindly, wise and generous adviser in all matters relating to medical bibliography. Probably few men in the profession owe a deeper debt of gratitude to the Surgeon-General's Library than I.' ('Robert Fletcher. 1823-1912.' *Bristol Medico-Chirurgical Journal*, Dec. 1912.)

² Presented before the Montreal Veterinary Association, Jan. 19, 1882. *American Veterinary Review*, Apr. 1882, vi, 6-10.

history of medicine, was announced this same year—Koch's discovery of the tubercle bacillus. It is difficult to realize to-day, in view of our familiarity with these matters, what a stir this must have made; for though tuberculosis, despite its protean manifestations in the different organs of the body, was beginning to be understood with the aid of the microscope, without the discovery of the bacterial agent the 'tubercle' apparent to the naked eye would have remained as the characteristic lesion of 'consumption' of tissue, whether of the lungs, bones, joints, or glands.

That a young English chemist, William Henry Perkin, in 1856 had become interested in the by-products of coal-tar and discovered 'mauve', the first of the aniline dyes; that German chemists had enormously developed these dyes; that a particular one should have been found to have an affinity for the tubercle bacillus, a hitherto unknown and unsuspected organism; that Koch had the imagination to devise the necessary combination of dyes, the intelligence to realize the significance of his discovery, and the genius which enabled him subsequently to cultivate the minute rods shorter than the diameter of a red blood-corpuscle—all this is a serial story well known, and the world looks forward with expectancy to the final chapter, the practical eradication of the 'white plague', one of its greatest scourges.

Koch's celebrated address in which he first gave proof that tuberculosis was a highly infectious bacterial disease affecting both man and animals, was delivered before the Physiological Society in Berlin on March 24th.¹ It was reported in full in the June issue of Ross's journal, and in the July number there occurs a note to the effect that at the McGill Physiological Laboratory Professor Osler before the class of senior students successfully demonstrated the presence of the organism in the lung of a man who had died of rapid general tuberculosis.

Osler's microscopic leanings, as has been indicated, were chiefly towards the morphological elements of the blood; his studies of communicable diseases were chiefly devoted to those due to animal parasites, of a far higher order than the bacteria; and though his interest in bacteriology was

¹ *Berliner klinische Wochenschrift*, 1882, xix. 221-30.

sufficiently acute to make him quick to confirm Koch's discovery, his inexperience with bacteriological technique rendered him incapable of pursuing the subject farther.

Koch's celebrated address ended with the statement that when the idea of the infectious nature of tuberculosis had taken root among physicians the means of warfare suited to contend with this enemy would be elaborated. It was along these lines that Osler's subsequent work in connexion with tuberculosis mainly lay, and in later years he became one of the chief leaders in the antituberculosis crusade. But even prior to Koch's pronouncement he had seen the light. For as Dr. Duncan McEachran recalls,¹ at one of the early meetings of the 'Medico-Chi.' after he had given an address on the contagious character of bovine tuberculosis, Osler expressed the opinion that tuberculosis was spread by contagion in the human species also and advocated a campaign to popularize this view. But it was urged by others that this would merely cause public alarm and that the apparent hereditary character of the disease could sufficiently well account for its occurrence in the several members of a family.²

In August the American Association for the Advancement of Science, as prearranged, met in Montreal under the presidency of Principal Dawson. Since Osler was on one of the local committees of arrangement he must have been kept busy, the more so as he was on the programme to give certain demonstrations and to read, before the Section on Histology, three short papers which contained an account of some of his original observations on the blood. On the heels of this gathering, the Canadian Medical Association, of which he was still the General Secretary, held its annual meeting in Toronto, where he not only read his paper on Echinococcus Disease,³ but also gave a demonstration of the

¹ 'Osler and the Montreal Veterinary College.' *Journal of the Canadian Medical Association*, 1920.

² The idea of contagion did not reach the public for another twenty years, not until after the Tuberculosis Congress in London in 1901, on which occasion McEachran was the representative of Canada, and Osler of the United States.

³ This paper, 'On Echinococcus Disease in America', was a statistical study of sixty-one cases gathered from various sources, together with his own

newly discovered bacilli of anthrax and tuberculosis; and one may feel sure that the spirit of James Bovell hovered over the microscopes through which they were shown. It was said to have been the most successful gathering in the history of the Association, the chief credit of which the official accounts of the meeting ascribed to the activities of the General Secretary, for the membership had more than doubled since he had taken the position.

The semi-centennial of the McGill Medical School fell in this year of 1882, and Palmer Howard, who had recently succeeded to the position of Dean on the death of Dr. G. W. Campbell, arranged to recognize the occasion suitably, invitations being issued to all graduates. On the evening of October 4th the assembly gathered in the large lecture-room of the new Peter Redpath Museum—he of the acupuncture episode. There were the usual receptions and dinners customary at such celebrations, and Howard made the announcement of a promise from an anonymous donor, who proved to be Donald A. Smith (later Lord Strathcona), of \$50,000 for an endowment, provided a like amount could be raised by August 1883. Osler promptly wrote an enthusiastic letter to H. V. Ogden, saying that 'the Festival was a grand success—and prospects are good of the 100,000.' Ogden had graduated in the spring, and though Rogers had a successor, a Mr. Cantlie, the household at 1351 St. Catherine Street ultimately broke up a short time before Buller's marriage. For a time Osler lived on Dorchester Street with Arthur Browne (by now Professor of Midwifery in the School) and temporarily also with the cousins on McGill College Avenue. He was apparently paying court at this time to a young lady, whose father is said to have objected to a son-in-law with agnostic leanings and no visible means of support. However this may be, letters from the cousins to Ogden say that 'he is most scrupulous in his get-up, a beaver hat on all occasions and an extremely fashionable London importation for particular ones! The important question of "to be or not to be" is not settled yet, so don't congratulate him.' It was not to be.

personal observations. He signs himself as 'Lecturer on Helminthology, Montreal Veterinary College'. Cf. *American Journal of the Medical Sciences*, Oct. 1882, lxxxiv. 475-80.

In January 1883 a firm of medical publishers in Philadelphia, Henry C. Lea's Son & Co., transformed the old *Medical News*, a monthly publication which had been going for forty years, into a weekly paper in the quarto format of the *Lancet*. Dr. Minis Hays continued to be the Editor and he made it a feature of the journal to give abstracts of the proceedings of the more important medical societies: the New York Pathological Society, the Philadelphia Academy, the New York Academy of Medicine, the Medico-Chirurgical Society of Montreal, and so on, being included. Osler was asked to be the Montreal correspondent, so that during the next two years the frequent 'Montreal Notes' and the abstracts of the proceedings of the local society were written by him. His connexion with the *Medical News* in this capacity had some bearing on his subsequent call to Philadelphia.¹

He had expected to go abroad for another period of study on the Continent in 1883, but for some reason, possibly because of difficulties which had arisen between the students and the teacher of materia medica whose resignation they demanded, this trip was postponed. His assistant, who does not appear to have made himself very popular with the students, was sent in his stead. Another trouble which the school faced at this time was due to the custom of 'body-snatching' for anatomical material, and it was not until Shepherd succeeded in getting a proper anatomical law through the Quebec Legislature that this practice and the disturbances it occasioned abated. It must have seemed to Osler, with the multitude of local activities with which he had become connected, that he was likely to become more and more firmly anchored as time went on.

In June he was elected a Fellow of the Royal College of Physicians of London, an honour which he mentions off-hand in this letter to Ogden:

To H. V. Ogden from W. O.

30/6/83.

Dear Ogden, Very glad to get your letter and to hear that you are progressing. Oddly enough I was on the Mountain this after-

¹ Osler was not unknown to Philadelphia, for he had been there in 1881 on one of his periodic tours 'to look over the museums and hospitals'; had met, and been impressed by, Pepper; and had visited Tyson. Cf. *Philadelphia Medical Journal*, 1899, iii. 607-11.

noon and met Mrs Barnard with a troop of friends and among them the lady you mentioned. I shall call tomorrow or the day after. Things here are pretty quiet, but the changes, as you will see by the announcement—to be mailed on Tuesday—have been numerous, and I hope for the improvement of the teaching in the school. Stewart will be a great acquisition. He is still in Vienna but will return in time. A. A. Browne and Gardner will make a good pair for Obst. & Gynecology. Penhallow, Asa Gray's assistant, takes Dr D's botany lectures this winter. Dr D. goes abroad for a year. That blooming Y.C.M.R.D. is in Winnipeg looking after Convention practice. We are joyful in the prospect of the \$100,000 endowment. We have \$40,000 of the \$50,000 necessary to secure the equivalent sum from our anonymous friend. Buller keeps well: he has moved to a mansion on Dorchester St. I am next door, i.e. in Browne's, until his return and then I don't know where I shall go—perhaps with Stewart. R. J. B. Howard comes out in Oct. to take the Jr. Dem. of Anatomy. He has passed the Primary of the F.R.C.S. Did you hear that the R.C.P. Lond. had honoured me by electing me a Fellow? I feel very grateful, as my period of probation as a member (5 years) had scarcely expired. All are well at No. 66. The children are very jolly and often talk of you. Willie, only this evening, was laughing at the remembrance of giving you the mumps. Tell Dorland I will send him a formal invitation to the C.M.A. meeting—also the other Dr. The papers will be most acceptable. Write again soon.

The Royal College of Physicians—'R.C.P. Lond.'—of which he had already become a member by taking the examinations in 1878, is probably the most ancient society of physicians in Europe, its charter having been granted by Henry VIII in 1518. It was founded by the king's three physicians, the leader of whom, Linacre, 'a disciple of the new learning brought from Italy', was one of Osler's chief heroes of medicine. The reaction which this election had upon his Canadian colleagues is reflected in many fulsome notes which appeared in all the journals of the Dominion containing felicitations on 'a distinction which few men of Dr. Osler's age attain and which is now held by only two resident Canadians of any age'.¹

As usual, the early summer was punctuated with medical

¹ By a coincidence another F.R.C.P. elected at this time was a physician of Leeds, Clifford Allbutt, a man several years Osler's senior. In course of time the two came to be the Regius Professors of Medicine, respectively, of Cambridge and Oxford.

gatherings. Thus July 11th finds him at Quebec with Ross for the triennial meeting of the College of Physicians and Surgeons of the Province, held at Laval University; and as he says in one of his 'Montreal Notes' to the *Medical News*, 'no little excitement at the time prevailed among the French-Canadian members of the profession regarding the disestablishment of the Montreal branch of this college which finally had been settled by a Papal decree' in favour of Montreal. Later in the summer he was again with H. P. Bowditch at the Adirondack camp, and a letter of August 29th tells of a 'scramble to the top of Beede's Falls, and along the cliffs towards the Washbowl'. It may have been during this outing that he read with unconcealed delight the third volume of John Brown's 'Spare Hours', and immediately set himself to write a review of the essays for the *Medical News*. To hand on a book he had enjoyed, either as the volume itself or through a review calling attention to it, became a fixed habit with him, and as this appears to have been his first published book-review it deserves passing attention:

Its American title [he said] is a rather unhappy translation of the author's *Horae Subsecivae*, but the 'pith and marrow' is just as good under one name as another. The general popularity of the first two volumes is such that 'Rab and his Friends' is now an English classic, and few of our readers, we trust, are not friends of 'Marjorie Fleming', with her 'Newgate calendar of all the criminals as ever was hung', or are ignorant of the 'Mystery of Black and Tan', or the splendid description of Chalmers, or the loving tribute to his father. The present recent volume—and we must add the last we shall ever have from his accomplished pen, now, alas! laid aside for ever—contains mostly purely professional papers, and as such will interest us all as physicians. Most of us would take exception to the genial doctor's conviction 'that a mediciner should be as free to exercise his gifts as an architect or a mole-catcher', but all surely will be with him in his plea for 'the cultivation and concentration of the unassisted senses'. This phrase is the key-note, indeed, to most of the volume. We are apt, amidst our learning and our scientific observations, to forget that the ear, the eye, and the hand are after all the chief avenues of knowledge, and to neglect their finer cultivation in our eagerness to learn the mysteries of all our 'scopes' and our reagents. We need the *experientia* as well as the *experimenta*. And it comes with peculiar force from one who is such an exuberant classical scholar that his Latin and his

quotations from the older English classics overflow on almost every page. . . .¹

What John Brown had written of Dr. Adams of Banchory, and of Locke, and of Sydenham 'the Prince of English Physicians, at the mention of whose name Boerhaave invariably removed his hat' may have been still in his mind when in September he attended the annual meeting of the C.M.A. in Kingston. For an episode occurred there during one of the sessions, which concerned the 'General Secretary', who made clear what were his feelings regarding the proper relations of one physician to another. The official report of the meeting states that a certain Dr. D—— read a paper on 'The Conduct of Medical Men towards each other and towards each other's Patients', in which he scoffed at the custom requiring a new-comer to call on those already settled in the place; claimed it was perfectly justifiable to report one's cases of operation or extraordinary cures in the papers; and went on to say: 'Take all the cases you can get, and keep them if you can without reference to the previous attendant.'² There were a few occasions, some of which will be referred to later, when Osler became, for righteous reasons, greatly worked up, and this was one of them. It is said that on the conclusion of this amazing paper he arose and, to the consternation of his fellows, waved a copy of the Code of Ethics in the reader's face and publicly denounced him.

Meanwhile, during this summer the trouble with the McGill students over the professorship of Materia Medica had been settled largely through Osler's intermediation, by the resignation of the former incumbent and the appointment of Dr. James Stewart in his place.³ On Stewart's return from a sojourn in Vienna he and Osler lived together

¹ *Medical News*, Phila., Sept. 8, 1883, xliii. 273. Arthur Browne had given Osler a copy of the 'Horae Subsecivae' in London in 1872. Cf. 'Bibliotheca Osleriana' (in press).

² Cf. *Canada Medical and Surgical Journal*, 1883-4, xii. 107.

³ An amusing account of this student protest against an incompetent teacher occurs in an undergraduate publication, the *McGill University Gazette* (May 1, 1883, vi. 7). It contains a note about a 'scribe short of stature but of a mighty understanding' evidently meaning the Registrar. The article purports to have been found by 'Damphino Cook, B.S., Zn Cl₂ + H₂S', the efficient janitor of McGill College Medical School.

in T. G. Roddick's house during a European trip Roddick had taken in his turn. Stewart, though an able and industrious colleague, was a most silent man, of whom his house-mate was accustomed to say that he never could tell whether 'Jim' Stewart had the gift or the infirmity of reticence; but it was a pleasanter home and better quarters than Osler's previous ones. Roddick had recently become co-editor with Ross of the *Canada Medical and Surgical Journal*, and during his absence Osler evidently took over for him the task of preparing the editorials, for some of them, like that on 'Doctors' Signs' already quoted, are unmistakably his.

With Palmer Howard and F. W. Campbell he attended the centennial celebration of the Harvard Medical School on October 17th, at which time Oliver Wendell Holmes gave the memorable address¹ in which, when speaking of the three founders of the school, John Warren, Waterhouse, and Aaron Dexter who was Professor of Chemistry, he mentioned the 'Settee of Professorships'. He told the following story of Dexter which must have amused Osler, who himself was conscious of the difficulties in making a class experiment do what it should:

It is sad to think that professors honoured in their day and generation should often be preserved only by such poor accidents as a sophomore's jest or a graduate's anecdote. The apparatus of illustration was doubtless very imperfect in Dr. Dexter's time, compared to what is seen in all the laboratories of to-day. We may admire his philosophy and equanimity therefore, in recalling the story I used to hear about him. 'This experiment, gentlemen', he is represented as saying, 'is one of remarkable brilliancy. As I touch the powder you see before me, with a drop of this fluid, it bursts into a sudden and brilliant flame', which it most emphatically does *not* do as he makes the contact. 'Gentlemen', he says, with a serene smile, 'the experiment has failed; but the principle, gentlemen,—the principle remains firm as the everlasting hills.'²

¹ 'The New Century and the New Building of the Medical School of Harvard University.' *Medical News*, Phila., Oct. 20, 1883, xliii. 421.

² In an unsigned article ('The Harvard Centennial.' *Canada Medical and Surgical Journal*, 1883-4, xii. 251) obviously from Osler's pen, he speaks of the stand which Harvard, under the leadership of Charles W. Eliot, had taken in reforming 'the lax and imperfect system of medical education which prevails in the States'.

During this autumn and the winter of 1883-4 the usual miscellany of case reports was read before the 'Medico-Chi.', including the exhibition of further post-mortem specimens from the Veterinary College. Before the naturalists, too, on October 29th, he gave a paper on the comparative anatomy of 'The Brain of the Seal', illustrated by many prepared specimens of the brains of various animals.¹ But aside from these diversions he was industriously at work all this time over his endocarditis preparations, and a note-book of the period contains innumerable drawings of his histological preparations of the diseased valves showing the vegetations and their bacterial content, accompanied by pages of written description in pencil, now almost illegible. He had come to believe that this serious disease of the heart-valves was invariably bacterial in origin; and it was this clinical and pathological material which formed the basis of his Goulstonian Lectures in 1885. He made a few inoculation experiments and stained the organisms in the tissues; but his real contribution lay in the assembly of facts and in his graphic picture of the disease, which made it understandable and recognizable by the general profession. It must be recalled that secondary endocarditis may occur in a number of diseases and he had attacked an experimental problem far more complicated even than that concerned with the bacterial origin of pneumonia, the relation of which to a specific organism, despite Fränkel's and Friedlander's descriptions, had not as yet been fully established.

Osler's parents by this time, owing to Canon Osler's retirement, had moved from Dundas to Toronto, where their elder children had settled, and it was there he joined them for the holidays. Otherwise Christmas dinner would have found him at the Howards', where his special friends of the younger generation were 'growing like gossip', as his cousin Jennette is quoted as saying. For gossip, however, we must have recourse to letters other than those signed 'W. O.', and his house-mate Cantlie sends Ogden a long account of this particular Christmas dinner, which says that 'Mrs. Howard, excepting perhaps Miss Jennette Osler and

¹ Cf. Proceedings of the Natural History Society. *Canada Record of Science*, 1884, i. 64.

Mrs. Francis, is the cleverest and most brilliant woman I have met, nor have I ever seen a little girl of such delightful manners as little Muriel'. And he adds: 'Dr. Osler is as usual at home at this season—but returns next week. I do wish he would marry some wealthy woman—'twould be a great boon to him.' Though from hearsay there was ample opportunity, Osler apparently had no intention of immediately following the example of 'the Landlord'.

CHAPTER X

1884

EUROPE ; AND THE PHILADELPHIA CALL

IN January there appeared an unsigned editorial in Ross's journal, 'On the University Question', unmistakably from Osler's pen, in which he urges increased efficiency, better laboratories, better-paid professors and assistants in all medical schools—'men placed above the worries and vexations of practice, whose time will be devoted solely to investigating the subjects they profess'. The following paragraph from this editorial has a very prophetic ring :

It is one thing to know thoroughly and be able to teach well any given subject in a college, it is quite another thing to be able to take up that subject and by original work and investigation add to our stock of knowledge concerning it, or throw light upon the dark problems which may surround it. Many a man, pitchforked, so to speak, by local exigencies into a professional position has done the former well, but unless a man of extraordinary force he cannot break the invidious bar of defective training which effectually shuts him off from the latter and higher duties of his position. We have, however, many men in our colleges with good records as investigators, and we hear from them but seldom on account of the excessive drudgery of teaching which the restricted means of their college compel them to undertake. The instances are few indeed in our universities in which a professor has but a single subject to deal with, and those which do exist are in subjects of great extent and often subdivided in other colleges. In looking over the list of branches taught by a single professor in some of our colleges, we may indeed say with Dr. O. W. Holmes that he does not occupy a *chair* but an entire *settee*. If Canadian scholarship is to be fostered, if progress in science is to be made, this condition of things must be remedied, and we may confidently hope will be, as years roll on. . . . But unless the liberality of individuals is manifested in the manner of the late Mr. Johns Hopkins of Baltimore, we shall have to wait long for a *fully equipped* Canadian university. The Government of Ontario, however, has now the opportunity to put Toronto University on a proper basis, and do a great work for the intellectual life of this country. And it can consistently do so, as the Institution is a State foundation and is under State control, and the condition of the local Exchequer is plethoric. . . .¹

¹ *Canada Medical and Surgical Journal*, Jan. 1884, xii. 373.

‘Pitchforked by local exigencies’, as he himself had been, into the ‘settee’ of the Institutes of Medicine at McGill, Osler was doubtless fully conscious of his handicap. A well-endowed chair with the single subject of pathology to deal with would unquestionably have kept him in Montreal or taken him to Toronto or anywhere else just at this time—*Dis aliter visum*; and it was probably the better for medicine that it was so willed.

In a letter written to E. A. Schäfer early in the preceding autumn, stating that ‘a barrel of apples (*var.* Northern Spy) left to-day per SS. *Polynesian* for Liverpool’, he made known his intention to spend the coming summer in Europe. It was to be one of his periodic breaks ‘from the excessive drudgery of teaching’. His plans by early spring had matured, and he writes of them again to Schäfer, who evidently was expecting to attend the coming meeting in Montreal of the British Association for the Advancement of Science. Of this body Osler seems to have been the local representative, for he says: ‘Please send me within a few weeks the names of those members of the profession—so far as you know—who intend coming to Canada in August. I should like to arrange for their proper accommodation’; and he goes on to give details of railway arrangements, with trips to the Rockies and elsewhere. ‘I am afraid we shall not have much to show you here. You will be interested in Bowditch’s and Warthin’s laboratories, the only good ones on the continent.’ And in a postscript he adds: ‘I was nearly forgetting the most important point. I am breaking-up home and my arrangements for the autumn are as yet uncertain.’ Little did he realize how uncertain they actually were. In company with Palmer Howard’s son Jared, who had recently been made a demonstrator in anatomy in Shepherd’s department, he sailed on March 26th for Bremen, where apparently his first act was to buy the Tauchnitz edition of ‘The Autocrat’; and the copy, still in his library, thoroughly perused and annotated, saw them through to Berlin. It is possible to trace their footsteps by the series of medical and surgical letters (most of them unsigned) sent back to Ross for publication. In April he wrote from Berlin his

'Instalment No. I',¹ in which he comments on the transformation of Berlin during the ten years since his last visit, on the new drainage system, the changes in the Faculty, the new hospitals, and the 'palatial' laboratory buildings on Dorotheen Strasse which he could see from his windows.

To E. A. Schäfer from W. O.

2 Neue Wilhelm Strasse,
May 1st [1884].

Dear Schäfer,— . . . I shall be very glad to go to Elstree for a short time but I must go first to some friends in Russell Sq. for a week. I am afraid my lawn tennis days are over but you may tell Mrs. Schäfer that I am susceptible as ever—therein lies my safety—and shall be delighted to meet the young lady. I have seen Kronecker several times and he has showed me one or two very interesting things—particularly the experiment of permanently arresting the *ventricular* action by puncture of a small spot in the upper part of the septum vent. Mills is here working with him and also with Hoffmann and Salkowski. He is delighted with Strassburg. I hope in October to hand him over the Physiology and to another the Histology and have only the Pathology. I shall leave here about the first of July—possibly to go to Leipzig for a few days.

On this same day (May 1st) he got off his second open letter, describing the German Surgical Congress at which he heard Theodor Kocher's paper on cachexia strumapriiva—in other words on the peculiar symptoms which may occasionally follow the operative removal of goitre. In solving the mysteries of the disorder known as myxoedema, this represented the first forward step to be taken since Ord's demonstration, which Osler had also attended in London three years before. But aside from this, the fact that he should have been sufficiently interested in a congress of surgeons to attend the meetings and describe what he had seen and heard is of no little significance.² The follow-

¹ *Canada Medical and Surgical Journal*, May 1884, xii. 582.

² There can be little doubt but that the sound surgical judgement, unusual for a physician and for which he was justly celebrated, was due to his early habit of attending surgical as well as medical meetings, and of reporting them in full. In his accounts not only of the Medico-Chirurgical Society for the *Medical News*, but also of the Dominion association meetings of which he was recorder, his abstracts of the surgical papers and discussions were apt to be as thorough and full as were those in his own subjects.

ing characteristic scribble on a postcard, which chance has preserved, was soon forwarded to George Ross :

16th [May 1884, Berlin].

How are you off for letters? You have one for the June No. perhaps 2—as No. 1 probably did not get out in time for the May Journal tho' I sent it on the 15th April. I [shall] send on the 18th a description of the Koch dinner which might perhaps go after the Surg. Congress letter as it would be rather stale to keep for July No. Why the d. have you not written. What a slovenly careless forgetting unconscionable set of brutes you are—Have not had the Journal yet. If the Koch dinner cannot go in, do not keep it until July, send it to A H Wright, Toronto, as I shall have a good letter for the July No. Hope everything is flourishing. Yours &c., W. O.

The third letter, sent two days later as promised, describes the official dinner in honour of Robert Koch, whose party had just returned from the expedition sent out to India to investigate the bacterial origin of cholera :

It must, indeed, have been a proud moment for the whilom district physician, Robert Koch, on the evening of the 13th inst., when some 500 of his brethren met to do him honour on his return from India and Egypt. The reception was, as remarked to me by one of the privat-docents, unprecedented, and unparalleled in Berlin. It was, indeed, a gay festival. . . . Prof. Bergmann, after greeting the guest of the evening, and congratulating the commission on its safe return, referred to the pride which all felt, from the Kaiser to the lowest citizen, at the fresh honours to German science which had resulted from Koch's labours. 'It was not', he said, 'the courage with which you went forth to investigate the fatal plague which we admire. Many of those about me have done the same thing. He [Virchow] who went to Sperrat and Schliessen, to the typhus epidemic, threw his life on the hazard just as much as the man who examined the bodies of cholera patients in the dirty huts by the Ganges. The device of our profession is that of the candle—"*aliis serviens ipse consumer.*" . . . Who does not know how often the spirit of a country physician is broken, and his thinking powers weakened by the endless round of visits. The reality of the wagon-rattle fits badly with the ideal of scientific work. But the district physician of Wollstein knew how to glean some hours from the restless and driving activity of practice, and in the space of ten years has concluded the series of brilliant observations from the discovery of the spores of the bacillus anthracis to that of the bacillus of cholera.'

These extracts will give but a feeble idea of Prof. Bergmann's stirring address. . . . Dr. Koch's reply was extremely modest: he

claimed only to have discovered improved methods of observation. He believed that one important result of the commission would be, if the English Government gave proper assistance, the limitation of the cholera to its native place in India. . . . His career is particularly pleasing, and it reminds one of that other country physician who nearly a century ago made the memorable observations on cow-pox.¹

The 'good letter for the July No.' dealt largely with Virchow, for whom Osler always felt and expressed the most profound admiration. He was unquestionably the outstanding figure in medicine of the day—a man whose interests extended far beyond pathology, in which his first great contributions to medical science had been made; and knowing of his anthropological leanings Osler had taken him as a present some Indian skulls from British Columbia. The letter begins thus:

The central figure of the Berlin Faculty is Virchow. . . . After 20 years of teaching, it is but natural that he should have much of the drudgery done by his able assistants, Drs. Jürgens, Grawitz and Israel, who conduct the autopsies and the courses on pathological histology. Students have, however, still the great privilege of hearing him in three different classes, and at 11 a.m. each day he gives a lecture on special pathology. . . . The other morning I could not but feel what a privilege it was again to listen to the principles of thrombosis and embolism expounded by the great master, to whose researches we owe so much of our knowledge on these subjects.

Politics and anthropology absorb the greater part of his time. He is a member both of the German Parliament and of the Prussian House of Representatives, and I noticed a day or so ago in one of the daily papers an item stating the number of times that each member spoke—I forget in which House—that Virchow had spoken on 38 occasions during the session. It need scarcely be stated that he is an advanced liberal. He is also a member of the City Council—not an idle one either, as the copious literature of the canalization (drainage) system of the city can testify, and I notice that he has been again urging the further extension of the sewers. His archaeological and anthropological studies are at present most extensive, and it is upon these subjects now that he chiefly writes. When one turns to the index of authors in the volumes of Transactions of the Berlin Archaeological Society the figures after his name stand thick and deep, just as they do in a similar index in medical works. He

¹ 'The Koch Dinner.' *Canada Medical and Surgical Journal*, June 1884, xii, 677. Another even more detailed account of the occasion was sent to Minis Hays for the *Medical News*, June 7, 1884, xlv, 687.

has been collaborator with Dr. Schliemann in several of the important works issued on Trojan antiquities. His collection of skulls and skeletons of different races, one of the most important in Europe, will doubtless find an appropriate place in the new Archaeological Museum erected by the Government. At present, his private rooms are a sort of Gehenna, which has laid every quarter of the globe under contribution. The very day on which I gave him four choice skulls of North American Indians from Prof. Bell's collection, two large cases of skeletons of the natives of Madeira were brought in. There are those who grudge him the time which he thus spends on politics and his favourite studies, but surely he has earned a repose from active pathological work, and may well leave section-cutting and bacteria-staining to the smaller fry; and when we consider that in addition to the classes above mentioned he is President of the Berlin Medical Society, and edits his *Archiv*, now a monthly journal, it can scarcely be said that he neglects professional duties. On all questions of general, medical and scientific interest, his utterances are not infrequent, and display a judicious conservatism—as witness his sound position regarding the Darwinian theory as opposed to the vagaries of Haeckel. . . .

The same letter contains an account of Frerichs, who had 'renewed his youth with the recent jubilee and astonished his medical friends by the production of a monograph on Diabetes'; and he goes on to describe Leyden's, Westphal's, and Henoch's clinics at the Charité; nor does he neglect meanwhile his public health interests, for he mentions a visit to the Royal Veterinary College, under Government control where 'there is much better teaching, and altogether a more scientific tone than is the case in English or American institutions of the kind.' The abattoir also was visited and he was 'able to see the admirable system of inspection of flesh, as well as to secure a number of valuable specimens illustrating the commoner morbid and parasitic appearances'.¹ The letter closed with this charitable comment on the Semitic invasion of Berlin:

'The modern *'bep, bep, bep'* shrieked in Berlin for some years past has by no means died out, and to judge from the tone of several

¹ Before the Pathological Society of Philadelphia on Sept. 24, 1885, he subsequently alluded to these visits as follows: 'The liver fluke, *Distoma hepaticum*, so common in Europe, is not very often met with in sheep and cattle in this country, and in my experience it is rare to find here the advanced changes described in works on parasites. When in Berlin in 1884 I spent two afternoons of each week at the abattoir, which owing to the elaborate system

of the papers devoted to the Jewish question there are not wanting some who would gladly revert to the plan adopted on the Nile some thousands of years ago for solving the Malthusian problem of Semitic increase. Doubtless there were then, as now, noisy agitators—prototypes of the Parson Stocker—who clamoured for the hard laws which ultimately prevailed, and for the taskmasters whose example so many Gentile generations have willingly followed, of demanding where they safely could, bricks without straw of their Israelitish brethren. Should another Moses arise and preach a Semitic exodus from Germany, and should he prevail, they would leave the land impoverished far more than was ancient Egypt by the loss of the ‘jewels of gold and jewels of silver’ of which the people were ‘spoiled’. To say nothing of the material wealth—enough to buy Palestine over and over again from the Turk—there is not a profession which would not suffer the serious loss of many of its most brilliant ornaments and in none more so than in our own. I hope to be able to get the data with reference to the exact number of professors and docents of Hebrew extraction in the German Medical Faculties. The number is very great, and of those I know their positions have been won by hard and honourable work; but I fear that, as I hear has already been the case, the present agitation will help to make the attainment of university professorships additionally difficult. One cannot but notice here, in any assembly of doctors, the strong Semitic element; at the local societies and at the German Congress of Physicians it was particularly noticeable, and the same holds good in any collection of students. All honour to them! ¹

Another long letter, to A. H. Wright for the Toronto journal,² was sent the following month from Berlin. In this an account was given of the Congress of German Physicians which opened on May 20th with Frerichs as President, and which drew a distinguished gathering as it coincided with the festival in his honour. There was much, as would be expected, of infectious diseases and their relation to micro-organisms, for new discoveries were being

of inspection, both ante- and post-mortem, offers one of the best fields in Europe for the study of comparative pathology and helminthology; and through the kindness of Dr. Hertwig I was enabled to secure a large number of interesting specimens.’ (*Transactions of the Pathological Society, Phila.*, 1887, xiii. 222-4.)

¹ *Canada Medical and Surgical Journal*, July 1884, xii. 721-8. Following this letter, signed ‘W. O.’, is another signed ‘R. J. B. H.’, who writes about von Bergmann’s clinic and describes the antiseptic methods in vogue there.

² *The Canadian Practitioner*, 1884, ix. 184.

announced like corn popping in a pan. Friedlander was present, and recounted new experiments with pneumonia; Fränkel described the pneumococcus, the relation of which to the disease was not as yet generally accepted; and Loeffler gave a *résumé* of the diphtheria question, with experimental support for the Klebs bacillus as the cause of the disease.¹ However, in spite of Osler's regard for Virchow and all that Berlin offered, the subsequent sojourn in Leipzig aroused his enthusiasm still more, for there he made his *début* into bacteriology. But the time, alas, was too short, and he was a little late in getting a start in this field which with his early botanical and microscopical training would have fascinated him. Another year in Montreal, particularly if he could have lived 'under the roof of his laboratory', might have seen him an active worker in the aetiology of the infectious diseases.

To George Ross from W. O. Leipzig, Wednesday 10th [June].

Dear Ross, Journal of May & your letter came on Monday—Glad to have them. April No. never turned up. Have written to Bastian. Hope he will come but he wrote to me saying that he could not. Shall be most happy to play distinguished stranger at 49 Union Ave [Ross's address in Montreal]. Came here last—very glad. Wish I had done so at first as everything is most *angenehm* in Cohnheim's² Laboratory. Weigert is in charge, C. being ill with gouty nephritis. I go there at 8 a.m. work until 10.30 at Bacteria, then go to Leuckart's³ laboratory until 1 p.m. when I dine & return to Weigert⁴ or go to Zorn's assistant at the Veterinary School. Wagner's⁵ Med. Clinic here is good. I have not yet been to Flechsig. The buildings here are very convenient. I am living opposite the *Zoologisches Institut*—very comfortable pension—much more so than the Berlin one & at 2/3s the cost. Lord! don't I wish I could live all the year round for 120 marks a month (beer included). Were it not for books &c. it would be a great economy to live abroad all the year. I have asked Howard to get a little inner room rigged up for the Koch

¹ It may be noted that in Paris on the date of the opening of this Berlin Congress, Pasteur read before the *Académie de Médecine* his paper announcing the discovery of the virus of hydrophobia and a method of protecting against it.

² Julius Cohnheim, Prof. of Pathological Anatomy.

³ Carl Leuckart, Prof. of Zoology and Comparative Anatomy.

⁴ Karl Weigert became Cohnheim's successor in 1884.

⁵ Ernst Wagner after a training in pathology became Director of the Medical Clinic on Wunderlich's death in 1877.

apparatus which we ought to have so that we could have some cultures under way when the Association is there. I shall try to bring out some cultures wh. will do for stock—The only trouble is that the heat may destroy them. I do hope the Faculty will be able to arrange for Mills & myself to *live* at the College. How I envy some of these men! Leuckart has about \$4,000 a year, with a splendid set of apartments on the 3rd floor of the Institut. It seems *comisch* at first to see the upper flats devoted to the families of the professors and assistants but it saves time and money. Perhaps next summer the Governors might put a double mansard on and give me the upper one. Glad to hear from Dick MacDonnell that a telephone has been put in the College. Have a letter half ready—will be out by 1st & a Leipzig one will do for August. Hope the Surg. Congress one & Koch dinner are both in this No. If that letter came too late dont put it in the July No. as it will be very stale. Glad to hear of the preparation for the C.M.A. Lawson Tait will give an address on abd. Surg. & I have asked Sanderson (with Mullin's consent) to give one on Medicine. I have had no word from him yet tho it is some weeks since I wrote. Shall write again. I leave here July 12th. Bk. of Montreal or 25 Russell Sq. will find me in London. Let me know if I can bring out anything. I shall send out a couple of trunks from here. This writing is awful, but the pen is worse.

The last of his series of letters¹ to Ross's journal opens with a description of the medical conditions in Leipzig; of Cohnheim's pathological institute, and the illness of its distinguished chief; and then passes on to his assistant as follows:

The charge of the laboratory is virtually with Professor Weigert to whom medicine is under a deep debt of obligation for the introduction of the use of aniline dyes in histological work, as well as for the unravelling of many knots in pathological histology. He is a model of industry—first at work in the morning, last to leave at night—extremely affable and attentive, qualities which go so far to make one's stay in a laboratory comfortable and agreeable. I know of no place where a man can better work at pathological histology. . . . The medical clinic is in charge of Professor Wagner. . . . His method and manner remind one of Traube, which in my opinion is one of the highest compliments to pay a teacher. From 9.45 to 11 a.m. instruction is given upon cases brought into the theatre, usually three or four each day. At the beginning of the lecture new

¹ *Canada Medical and Surgical Journal*, Aug. 1884, xiii. 18-22. (Signed 'W. O.')

cases are given out to the students, who go to the wards and make out the history, &c., and then, when one of their cases is brought before the class, the student whose case it is goes into the arena and states the prominent features and makes the diagnosis. The physical examination is made by the student, and then a general summary is given to the class, with the necessary explanatory remarks. We all know how apt this method is—in some hands—to be dry and wearisome; details are obtained slowly by the student, and I have seen a class thoroughly tired, the professor irritated, and half-an-hour consumed in getting primary facts. Professor Wagner seems to get the details quickly, and the students appeared to me to be very much brighter than those at Berlin. To students coming to Germany for post-graduate study I would most strongly recommend them to take a semester at this clinic. For the general practice which nine-tenths of doctors ultimately engage in, it is worth any dozen special courses that I know of. . . . Probably the most notable figure in medical Leipzig is Prof. Ludwig, Director of the Physiological Institute, and the Nestor of German physiologists. Indeed he has a higher claim than this, for when the history of experimental physiology is written his name will stand pre-eminent with those of Magendie and Claude Bernard. He is now an old man, with bodily vigour somewhat abated, but mentally fresh and suggestive as ever. He has the honour of having trained a larger number of physiologists than any other living teacher; his pupils are scattered the world over, and there is scarcely a worker of note in Europe—bar France—who has not spent some time in his laboratory. . . . It is very hard to adjust the two great functions of a university, or a part of it, as represented, say, by such an Institute. The work which shall advance the science, which brings renown to the professor and to the university, is the most attractive and in German laboratories occupies the chief time of the Director. This function is specially exercised, and the consequence is that medical literature teems with articles issued from the various laboratories. On the other hand, the teaching function of an institute is apt to be neglected in the more seductive pursuit of the ‘bauble reputation’.

So the letter went on; and after a description of Leuckart's Zoological Institute and of Dr. Zurn, ‘one of the leading authorities on the diseases of birds’, it concludes with a characteristic note regarding his ‘indebtedness to the University Librarian for many acts of politeness’. Thus Virchow, his most distinguished pupil Cohnheim, who died later in this year, Ludwig, Traube, and Ernst Wagner (among others who stood in the front rank of the profession in Germany) all left an indelible mark on Osler's receptive

mind in spite of his brief contact with them. Years afterwards in one of his addresses he said :

... I was much impressed by a conversation with Professor Ludwig in 1884. Speaking of the state of English physiology, he lamented the lapse of a favourite English pupil from science to practice ; but he added : ' While sorry for him, I am glad for the profession in England.' He held that the clinical physicians of that country had received a very positive impress from the work of their early years in physiology and the natural sciences. I was surprised at the list of names which he cited : among them I remember Bowman, Savory and Lister. Ludwig attributed this feature in part to the independent character of the schools in England, to the absence of the university element so important in medical life in Germany, but above all to the practical character of the English mind, the better men preferring an active life in practice to a secluded laboratory career.¹

His sojourn in Leipzig which so delighted him—' going for the bacteria ' as he expressed it in a letter to Ogden—was to have a sudden and unexpected end. On the fly-leaf of his commonplace-book under the date 17/6/84 is the note, ' Telegraphed Tyson from Leipzig that I would accept Professor of Clinical Medicine in the University of Pennsylvania, " Yes ".' And in another place occurs the provisional draft of a letter in reply to the one evidently sent by Tyson, May 29th. Two days later came a package of mail from Montreal, and he writes to both Shepherd and Ross in similar vein as follows :

June 19th.

Dear Ross, Shepherd forwarded me a letter this week which played the deuce with my peace of mind. Tyson writes asking me if I would accept the Chair of Clin. Med. in Univ. of Penn. if appointed. His letter is quite unofficial & nothing may come of it, but after much meditation I decided to reply in the affirmative. The temptation is too great, but the prospect of severing my connexion with McGill & Montreal gives me no end of worry. However, it may come to nought, but of course I wrote to H. at once. Now I think, as I told him, it had better be kept quiet—not let a rumour get about if possible. It would stir up another Hospital agitation. Shepherd may possibly have twigged it from the opening sentence of the letter. I sometimes think it may be a hoax but the matter of fact communication—wh. Howard has—does not look like it. ' My heart within me is even like melting wax ' at the thought of the possibility of leaving you all.

¹ ' British Medicine in Greater Britain.' Cf. p. 458.

Shorn of its details, the story as he recounted it years afterwards may be given in Osler's own words :

I was resting in a German town when I received a cable from friends in Philadelphia, stating that if I would accept a professorship there I should communicate with Dr. S. Weir Mitchell who was in Europe and who had been empowered to arrange the details. I sat up late into the night balancing the pros and cons of Montreal and Philadelphia. In the former I had many friends, I loved the work and the opportunity was great. In the latter the field appeared very attractive, but it meant leaving many dear friends. I finally gave it up as unsolvable and decided to leave it to chance. I flipped a four-mark silver piece into the air. 'Heads I go to Philadelphia; tails I remain at Montreal.' It fell 'heads'. I went to the telegraph-office and wrote the telegram to Dr. Mitchell offering to go to Philadelphia. I reached in my pockets to pay for the wire. They were empty. My only change had been the four-mark piece which I had left as it had fallen on my table. It seemed like an act of Providence directing me to remain in Montreal. I half decided to follow the cue. Finally I concluded that inasmuch as I had placed the decision to chance I ought to abide by the turn of the coin, and returned to my hotel for it and sent the telegram.¹

Early in May the announcement had been made of the retirement, after twenty years' service, of Alfred Stillé from the senior Chair of Medicine at the University of Pennsylvania, and it was obvious that William Pepper would be his successor. For Pepper's Chair of Clinical Medicine a lively canvass had been in progress and there were two particularly worthy candidates, both of whom from long service and in junior positions well deserved advancement. The following statement of the subsequent events so far as they concerned Osler has been furnished by Dr. Minis Hays :

The Medical Committee of the Trustees recommended to the full Board that a named member of the existing teaching staff should be elected to fill the vacancy. At a weekly meeting of the Editorial Staff of the *Medical News* held shortly afterwards, upon the conclusion of the routine business, the members engaged in general conversation, and the first and uppermost topic naturally was this recent nomination to the Board of Trustees. There were present at the meeting Doctors Hays, Bartholow, S. W. Gross, Parvin and Tyson. Surprise was expressed that the Committee had not gone

¹ Remarks before the American Club (Rhodes Scholars) of Oxford, July 12, 1916; unpublished.

further afield and taken a wider view of the available material before making its recommendation, and Dr. Osler of Montreal was mentioned as one eminently qualified to fill with marked ability the duties of the Chair, but his name, so far as known, had not been even given consideration in connexion with the filling of the vacancy.

Dr. Osler was then known to the gentlemen present only by reputation and by his writings. Dr. Tyson, a prominent member of the University Faculty, while recognizing Dr. Osler's capacity to fill the Chair with conspicuous ability, seemed to think that it was now too late to move in the matter; but in reply it was strongly urged upon him by those present that as the election had not been consummated the situation was not irretrievable. The other members of the staff strenuously concurred in the views expressed, and recognizing their force Dr. Tyson finally said that he would immediately take up the matter with his colleague Dr. Horatio C. Wood, who was then still in town—most of the members of the Medical Faculty being away on their summer holiday. The suggestion appealed very strongly to Dr. Wood, and with his characteristic energy he at once journeyed to Montreal to learn at first hand more concerning Dr. Osler's attainments and qualifications for the position.

All who were familiar with Osler's consulting-room and study in Baltimore, and with his library in Oxford, will recall certain familiar pictures. There was a large photograph, of course, of Bovell, another of Johnson, and another of Howard. Over the mantel was the panel of his three heroes: Linacre, Sydenham, and Harvey, the great triumvirate of British Medicine. Another portrait gave the fine profile of Newman, whom he admired as greatly for his personal characteristics as Johnson did for his religious views; and still another was a large photograph of H. C. Wood wearing a picturesque fur cap such as a distinguished earlier fellow townsman of his, Benjamin Franklin, was wont to wear.

Though they became great friends, he and Wood, as the foregoing statement indicates, were not acquainted at this time, and as the story is told in Montreal: 'some time in the summer of 1884 H. C. Wood suddenly appeared, unannounced, to make inquiries regarding the local feeling about Osler. He went first of all, curiously enough, to the French hospitals, and found that among the French physicians every one spoke of him in the highest terms; he then

visited the Montreal General, where he encountered such a degree of enthusiasm for Osler on the part of the young members of the house-staff that he became himself a thorough convert, and returned home without interviewing any of Osler's colleagues on the Faculty.' So it came about that on June 17th a coin was flipped at 14c Terch Strasse, Leipzig, which fell 'heads'. To this episode Osler, with some stretching of the facts, referred at the time of his departure for England fifteen years later, as follows :

I would like to tell you how I came to this country. The men responsible for my arrival were Samuel W. Gross and Minis Hays, of Philadelphia, who concocted the scheme in the *Medical News* office and got James Tyson to write a letter asking if I would be a candidate for the professorship of Clinical Medicine in the University of Pennsylvania. That letter reached me at Leipzig, having been forwarded to me from Montreal by my friend Shepherd. I had played so many pranks on my friends there that when the letter came I felt sure it was all a joke, so little did I think that I was one to be asked to succeed Dr. Pepper. It was several weeks before I ventured to answer that letter, fearing that Dr. Shepherd had perhaps surreptitiously taken a sheet of University of Pennsylvania note-paper on purpose to make the joke more certain. Dr. Mitchell cabled me to meet him in London, as he and his good wife were commissioned to 'look me over', particularly with reference to personal habits. Dr. Mitchell said there was only one way in which the breeding of a man suitable for such a position, in such a city as Philadelphia, could be tested: give him cherry-pie and see how he disposed of the stones. I had read of the trick before, and disposed of them genteelly in my spoon--and got the Chair.¹

It became necessary for Osler to engage again in the procedure of soliciting testimonials to forward to the University trustees in Philadelphia. It was done in a less distasteful manner than in his enforced campaign in 1878 for the appointment to the Montreal General--merely by asking some of his London friends, Bastian, Gowers, and Burdon Sanderson, to send some word concerning him to Dr. Mitchell if they felt so inclined. These letters were of such an unqualified nature as to leave no doubt in any

¹ 'L'Envoi': Response at farewell dinner, May 2, 1905. *Medical News*, 1905, lxxxvi, 854-60.

one's mind as to Osler's desirability on every possible score. Mitchell meanwhile had gone to Paris, whence he wrote a succession of letters to Tyson urging him to move, for 'unless we are pretty active we shall be saddled with another'; to Joseph Leidy, adding that, 'Osler is socially a man for the Biological Club if by any good luck we can get him'; and to others of the Faculty:

To James C. Wilson from S. Weir Mitchell. Paris, 17th [July].

I send more letters about Osler. He was to write me after hearing from Howard and as he has not done so I wrote him to-day about it, but the testimonials still coming must mean that he, Osler, *has* decided. Pepper has written me at length, and thinks that Bruen has great strength in the Board; I put him last for fitness and am in no doubt that Osler is in all ways the best man. He has every social need; his age is 35. He has won distinction as an investigator and writer, and will therefore add to our illustriousness, and as to competence as a teacher if anyone can be believed he must be a really unusual instructor. I wish you would write to Howard about him. I would vote for Osler with far less doubt in my mind than one usually has and with less than I should have as to any other candidate. Guitéras would be my second choice and Starr my third. If possible I think that the Provost and individual trustees, and I would say the faculty, ought to see the testimonials of Osler, and so much of my letters as concern him, and as you might think well to have *copied*. But these are purely suggestions. If you think well of it, Tyson would put together *all* there is in Osler's favour and see that all concerned saw it. . . .

What Osler wrote to Palmer Howard is not apparent, but a fragment has been preserved of a letter which Howard wrote so soon as rumours had reached his ears and a meeting of the Faculty could be called, and which offers too late some counter-proposals:

From Palmer Howard to W. O. The Saint Louis Hotel, Quebec,
[no date].

. . . I avail myself of the first opportunity to communicate to you. In the first place, the Faculty is not willing at once to relieve you of the Professorship of Physiology, and to make an appointment to that chair of a Professor. It thinks it wiser to allow some person probably Dr. Mills to *lecture* in the coming session on that subject for you with the view of finding out his adaptation to and fitness for the work of teaching. Altho' they do not question his ability they have some fears of his personal fitness in other respects. Under

this feeling and with these views the following resolution has passed unanimously at a large meeting of the Fac.: Moved by Dr. Farnell, seconded by Dr. Roddick, that this Faculty authorizes the Dean to communicate to Prof. Osler as follows: 'That this Faculty undertakes to make arrangements for the establishment of a chair of Pathology and Comparative Pathology at as early a date as possible. That the sum of sixteen hundred dollars be hereby voted to Dr. Osler for this year.'

Now as to the other part of it I don't know how to speak my own sentiments and those of the entire Fac.; the thought of losing you stuns us, and we feel anxious to do all that we can as sensible men to keep you amongst us, not only on account of your abilities as a teacher, your industry and enthusiasm as a worker, your personal qualities as a gentleman, a colleague and a friend; not only on account of the work you have already done in and for the school, but also because of the capabilities we recognize in you for future useful work, both in original investigation which shall add reputation to McGill and in systematic teaching of any of the branches of Medical Science you may care to cultivate; and finally because we have for years felt that vitalizing influence upon us individually exercised by personal contact with you—analogous to that produced by a potent ferment.

At the same time we know nothing of the inducements that may have been held out from other quarters, but hasten to assure you that the above expresses the spirit of our intentions. In any case don't finally decide to go elsewhere before you have either seen or communicated with us.

To H. V. Ogden from W. O.

25 Russell Sq., London,
[Aug. 1, 1884].

. . . I have been in England about three weeks and am enjoying London again. It is the world. How I should like to live here! Perhaps you have heard that by Oct. 1st I may have changed my allegiance and joined you as a citizen of the Gt. Republic. I have been asked by some of my Philadelphia friends to be a candidate for the chair of clinical medicine, vacant by the transference of Pepper to the chair of medicine. I have consented and from what Pepper writes me I think they mean to elect me—at any rate I have the strong professional backing of the electionary board. The salary is about what I get at McGill and of course the temptations are the larger centre and the prospects of consulting work. I am grieved at the thought of leaving McGill and Dr. Howard, but they will get along quite well without me—any one man is never essential. . . . I leave on the 7th and take out with me an aunt—a young girl of 84. I wish you could run down to Montreal for the meeting. . . .

He must have seen all his old friends in London, have visited Schäfer at Elstree, and have gone to Cornwall to see the family relations there; and when he sailed on the 7th he brought out with him 'the young girl of 84'—Mary Anne Pickton, his mother's sister, who was henceforth to share the family home in Toronto. On the fly-leaf of John Henry Newman's 'Verses on Various Occasions', a volume still in his library, Osler had written in a later hand:

This copy was given to my Aunt, Miss Pickton, of Edgbaston, Birmingham, by Cardinal Newman, with his photograph. She gave it to me in 1884, the year I brought her out to Canada. She and the Cardinal were exactly the same age. The additional verse to The Pillar of the Cloud [i.e. Lead, Kindly Light] at p. 152 is in her handwriting.

It is probable that during the voyage he found time to write the 'Notes of a Visit to European Medical Centres', which was published shortly after.¹ It is a *résumé* of his impressions, and concludes with this significant paragraph which shows the direction in which his thoughts were leading him—away from the pathological institute and from comparative pathology to the ideal clinic which became his goal:

The custom of placing one or two men in charge of a large hospital seems odd to us and has both advantages and disadvantages. Thus, Dr. Guttman is responsible to the city authorities for the care of about 350 patients at the Moabit institution and is, of course, allowed a staff of assistants on whom necessarily a large proportion of the work falls, and in some cases the treatment is entirely in their hands. At the city hospitals the rotation of assistants is much more rapid than at the University clinics, where they gladly remain for years at small salaries for the sake of the opportunity of making reputations as clinical workers. At the Charité the wards of Frerichs, Leyden and Westphal are clinical laboratories utilized for the scientific study and treatment of disease, and the assistants under the direction of the Professor carry on investigations and aid in the instruction. The advanced position of German medicine and the reputation of the schools as teaching centres are largely fruits of this system.

It was while he was at sea that the Editorial Board of the *Medical News* saw fit to make an announcement in their

¹ Editorial. *Archives of Medicine*, N.Y., 1884, xii. 170-84.

issue of 9th August of Osler's appointment. This note was promptly quoted broadcast, so that by the time of his landing, the cat was well out of the bag. The Canadian Medical Association met at Toronto, on August 25th to 27th, the most notable feature of the meeting being a long and, be it said, contentious address by Lawson Tait on the subject of abdominal surgery, then in its infancy—and it is over infants that their sponsors become quarrelsome. It may be assumed, however, that Osler at the mercy of his friends was nevertheless the centre of the gathering. The paper he had planned to read on 'Pneumonia as a Contagious Disease' was given only in abstract; and on the last day of the meeting, Roddick, who read the Report of the Nominating Committee, gave the name of Osler as the next President and of James Stewart to be his successor as General Secretary; and it was reported that 'with singular unanimity Dr. Osler was elected'.

It was a lively ten days, for the meeting of the British Association followed immediately after. At this gathering Osler's interests naturally lay with the physiological section, a long report of which he sent off for Minis Hays's columns.¹ The chief participants were Newell Martin and Howell from the Johns Hopkins Biological Laboratory; C. S. Minot and H. P. Bowditch of Boston; his pupil, Wesley Mills, and his old friend Edward Schäfer, who presided and took an active part in the programme, among other things reporting some experiments on cerebral localization carried out with Victor Horsley.²

His time of departure was drawing near and he was subjected to the usual series of tributes: appropriate resolutions were passed by the societies of which he was a member; there was a farewell celebration at the Dinner Club; minutes of congratulation were passed by the McGill Faculty upon 'his recognition by a distinguished

¹ *Medical News*, Phila., Sept. 27, 1884, xlv. 360-3.

² Among the British visitors were Drs. Struthers and Cunningham, Professors of Anatomy at Aberdeen and Dublin respectively, who subsequently visited the leading schools of Canada and the United States. Dr. Struthers on his return gave a full account of his impressions—a sorry picture of the conditions of medical education then existent in the States—conditions not yet entirely overcome.

foreign university'; and due acknowledgement made of his services as professor and of the 'admirable and efficient manner in which during the past seven years he has performed the important duties of Registrar'. Finally, on the eve of his departure, a large complimentary dinner, at which Palmer Howard presided, was given at the Windsor Hotel. The students themselves, not to be outdone, presented him with a handsome hunting-case watch, suitably inscribed, and they will be glad to know it was the watch he always wore.

So McGill lost what Howard called its 'potent ferment'; and thus closed Osler's Canadian period. He was thirty-five years of age, at the mid-point of his life, as it proved, though his expectancy at that time, in view of his ancestry, was for a longer tenure than is vouchsafed most men. Such a transplantation from one university to another of a clinician at the height of his career, though common enough in Europe, was unusual in America, and it caused a great deal of comment—favourable, be it said—on all sides. Still, even in America, there was ample precedent, as in the case of Nathan Smith, Dunglison, Gibson, Elisha Bartlett, Bartholow, Flint, Gross, and more besides. Nevertheless there was something different about Osler's call, for it represented the choice of a young man, known more for his scientific papers and his interest in research than for any proved clinical ability. Time has shown that such a preparation is often the best, though the appointment of laboratory-trained men to clinical positions often raises an outcry.

Unwilling to let go entirely, and trusting perhaps that the experiment might not succeed, the McGill Faculty at their meeting on September 3rd had voted him a six-months leave of absence, and his resignation was not officially accepted until October 11th, when final resolutions of regret were passed. Their hopes of his return were vain; and though in years to come he was often urged to do so, it was not to be. But he was never forgetful of what he owed to Johnson and Bovell and Howard; to the microscope and the pathological laboratory; to the Montreal General and to his Canadian friends.

What particularly lured him is difficult now to tell. It

may even have been difficult for him to tell. For a person capable of such strong local attachments there is something contradictory about it. A great career was assured in Montreal, whereas Philadelphia was an uncertainty in a land more foreign to him than England. The singularity of the call may have influenced him; and an ancestral impulse which bade him accept. He possibly realized that his bent lay in the study of disease as it was seen at the bedside rather than in the laboratory. As W. T. Councilman has said: ¹ 'He could easily have become a great scientist, but he chose the path which led to the formation of the great clinician which he became; a worthy associate of the great men who have made English medicine famous.'

During the short span of years since his McGill appointment he had stirred into activity the slumbering Medico-Chirurgical Society; he had founded and supported a students' medical club; he had brought the Veterinary School into relation with the University; he had introduced the modern methods of teaching physiology; had edited the first clinical and pathological reports of a Canadian hospital; had recorded nearly a thousand autopsies and made innumerable museum preparations of the most important specimens; he had written countless papers, many of them ephemeral it is true, but most of them on topics of live interest for the time, and a few of them epoch-making; he had worked at biology and pathology both human and comparative, as well as at the bedside; he had shown courage in taking the small-pox wards, charity in his dealings with his fellow physicians in and out of his own school, generosity to his students, fidelity to his tasks; and his many uncommon qualities had earned him popularity unsought and of a most unusual degree.

Years later, in an address ² given at McGill, while admitting that 'the dust of passing time had blurred the details, even in part the general outlines, of the picture', Osler spoke of this formative period of his medical career as one 'during which he had become a pluralist of the most abandoned

¹ *The Johns Hopkins Hospital Bulletin*, July 1919, xxx. 197.

² 'After Twenty-five Years.' *Montreal Medical Journal*, 1899, xxviii. 823.

sort', and concluded his interesting and amusing recollections by saying :

After ten years of hard work I left this city a rich man, not in this world's goods, for such I have the misfortune—or the good fortune—lightly to esteem; but rich in the goods which neither rust nor moth have been able to corrupt, in treasures of friendship and good-fellowship, and in those treasures of widened experience and a fuller knowledge of men and manners which contact with the bright minds in the profession ensures. My heart, or a good bit of it at least, has stayed with those who bestowed on me these treasures. Many a day I have felt it turn towards this city to the dear friends I left there, my college companions, my teachers, my old chums, the men with whom I lived in closest intimacy, and in parting from whom I felt the *chordæ tendinæ* grow tense.

PART II

THE UNITED STATES, 1884-1905

There are men and classes of men that stand above the common herd : the soldier, the sailor and the shepherd not infrequently ; the artist rarely ; rarer still, the clergyman ; the physician almost as a rule. He is the flower (such as it is) of our civilization ; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade ; discretion, tested by a hundred secrets ; tact, tried in a thousand embarrassments ; and what are more important, Heraclean cheerfulness and courage. So it is that he brings air and cheer into the sickroom, and often enough, though not so often as he wishes, brings healing.

Dedication to ' Underwoods '.

R. L. S.

CHAPTER XI

1884-5

FIRST YEARS IN PHILADELPHIA

OSLER's Philadelphia period began with his arrival on Saturday afternoon, October 11th, 1884, at a family hostelry which then and since has enjoyed the bookish appellation of the Aldine Hotel. The name, for obvious reasons, had been given by Mr. Lippincott the publisher, who had purchased what was formerly a residence and transformed it into a lodging-house in 1876 for visitors to the Centennial Exposition. The place had seen better days, days indeed of society and fashion when in the '50's it had been the suburban home of the son of Benjamin Rush; and though residential Philadelphia has long tended to confine itself within much the same boundaries, 20th and Chestnut Streets were in the '80's far from being suburban. It was one of those off-years when even October brings a spell of sultry weather, which must have been an unhappy contrast to the cool Province of Quebec for a lonesome man searching the heart of Philadelphia for a place to reside. In his account-book of the period he has laconically written opposite Tuesday, October 21st: 'Came to 131 S. 15th Street', and there follows a list of what appear to have been the dinner engagements to which custom subjected the new-comer: 'Oct. 28, Sinkler; 30, Musser; 31, Seiler; Nov. 2, Sun., Gross at 2 p.m.; 10, Brinton; 14, Pepper dinner at 7 p.m.; 17, Brinton ditto; 23, Weir Mitchell 7 p.m.; 25, Dinner at Pepper's; 26, Faculty; 27, Thanksgiving Dr. Tyson; 28, Wood; 29, Mrs. Longstreth.' Here the entries end.

No. 131 South 15th Street where he was to live alone for three years was a narrow, fifteen-foot, three-story brick house of the mongrel type of Philadelphia domestic architecture of about 1830, with basement windows on a level with the pavement, a high flight of steps to the front door, and an area-way beneath. It was one of a row of similar houses crowded in the block south of Chestnut Street where

the Union League Club now stands. Osler occupied the two ground-floor rooms; an office in front lined with bookshelves, and a waiting-room behind similarly lined. Among them some one remembers Jowett's 'Plato' in gaudy binding, and also that there were many medals and ribbons, relics of his former athletic prowess, that decorated the mantel. It was a wee establishment—probably kept none too tidy by its good-natured owner, Otto Hansen, a caterer, who lived upstairs, got his tenant's breakfast for him and otherwise tended to his simple wants. One of these was that books and papers should be left where deposited, whether on table, chairs, or floor. This must have been easy for Otto.

Though his advent had been much heralded, little was known about him, as is evident from a story told of old Dr. D. H. Agnew, a devout person of Scotch-Irish ancestry, who wrote and asked if Dr. and Mrs. Osler would not share his pew in the Second Presbyterian Church the following Sunday. When Osler was ushered in unaccompanied, Agnew whispered regrets that he was alone, whereupon Osler's mischievous half got the better of him. He merely raised his eyebrows and finger, which was interpreted by Agnew—and circulated—that the new-comer's wife was 'expecting'.

So far as the students were concerned, there can be no doubt that their first impression was one of disappointment. No polished declamations with glowing word-pictures of disease, such as they had listened to from Stillé and Pepper, and for which indeed the Philadelphia school was famed, came from this swarthy person with drooping moustache and informal ways, who instead of arriving in his carriage, jumped off from a street-car, carrying a small black satchel containing his lunch, and with a bundle of books and papers under his arm; who was apt to pop in by the back door instead of by the main entrance; who wore, it is recalled, a frock-coat, top hat, a flowing red necktie, low shoes, and heavy worsted socks which gave him a foreign look; who, far from having the eloquence of his predecessor, was distinctly halting in speech; who always insisted on having actual examples of the disease to illustrate his weekly

discourse on Fridays at eleven, and, as likely as not, sat on the edge of the table swinging his feet and twisting his ear instead of behaving like an orator—this at least was not the professor they had expected.

It is said of Pepper that, with great dignity but conveying the impression of having no time to spare, he would enter the classroom while taking off gloves and coat, and immediately begin a brilliant discourse on some topic, not always related to his prescribed subject. Osler, on the other hand, could be dignified enough and serious, but playfulness and gaiety were always ready to break through the mask. Moreover, anything suggesting the *poseur* was foreign to his make-up, and there was no concealment of the fact that he felt the need of elaborate preparations for his more formal student exercises.

But it was a horse of another colour when the students came in contact with Osler in the wards, for the bedside instruction such as he was accustomed to, was an undeveloped feature in the Philadelphia school. He shared with Pepper in the University Hospital the two large medical wards (B and D they still remain), but Pepper, though the head of the medical department and engaged in a large private practice, was Provost of the University as well, actively at work adding to its resources. Hence he rarely appeared except to give his accustomed lectures, so that Osler had these wards almost to himself; and in them, with an increasingly enthusiastic group of students about him, he was to be found the larger part of each morning during this first year and until greater opportunities took him elsewhere for his main bedside visits.

Among the young clinical men at this time, original study or research of any kind was almost unknown, and even had any sign of an investigative spirit been present there were no facilities for its development. For this, Osler's enthusiasm soon made an opening; almost within a month of his arrival he had rigged up a small clinical laboratory under a part of the hospital amphitheatre, and there, amid surroundings as unpromising as the students' cloak-room at McGill, he is said to have soon 'produced an atmosphere so encouraging and helpful that young fellows trooped to his

side'. This was a new experience to the senior students, who had previously been fed largely on graceful generalizations concerning disease, delivered from a platform. As one of them has said, it was like 'a breath of fresh air let into a stifling room', and disappointment soon gave way to devotion. Of this time Howard A. Kelly has written:¹

I was living in Philadelphia up in the big mill district of Kensington, culling a surgical out of a large general practice, and at the same time keeping in close touch with things at the University of Pennsylvania, for eight years my college, when it became manifest that some fresh and stirring blood had entered the college life. The university, with so many eminent men camping on her very doorstep in Philadelphia, and with that tendency to nepotism—a form of paternal pride seen in all successful institutions—had, as we younger men thought, driven John Guit  ras of brilliant promise in general medicine, away from her doors to protect Pepper from rivalry, and now, not without great hesitation as we understood, she had actually broken her shackles, thrown traditions to the winds and pulled William Osler down from McGill. Fresh invigorating currents of life and new activities in our stereotyped medical teachings began at once to manifest themselves, and every sturdy expectant youngster in short order lined himself up as a satellite to the new star. Osler breezes were felt everywhere in the old conservative medical centre, and yet it was not without some difficulties that he securely established himself.

Medical education at the time in the States was undergoing radical changes. After the reforms at Harvard a few years before under the firm hand of President Eliot, the University of Pennsylvania was the next to follow in making a three-year medical course obligatory; and the senior students of 1884 had been the first of whom an entrance examination had been required. Some of the old faculty members, as was natural, had opposed these reforms which the younger generation, represented particularly by Wood and Tyson, warmly upheld; but the result was that there had been a painful controversy in the Faculty. Before Pepper's appointment as Provost in 1881 the medical school had been larger than the academic department; but with the stiffening of the admission requirements its numbers, as was inevitable, fell off, and this was a source of

¹ 'Osler as I knew him in Philadelphia and in the Hopkins.' *Johns Hopkins Hospital Bulletin*, July 1919, xxx. 215.

anxiety to the younger medical teachers who had favoured the change and who feared there would be a lack of financial support, particularly for the development of laboratories. All of the teachers were active in practice, with the exception of Joseph Leidy, an eminent naturalist, who was Professor of Anatomy. Harrison Allen lectured on physiology but practised laryngology for a living; Tyson, who was Professor of Physiology, taught many other things and was likewise active in practice, which was also true of H. C. Wood, Agnew, Ashurst, Goodell, and the others. A recent graduate of the period, who, though working in the pharmacological laboratory, came under Osler's influence, has since written¹:

The remarkable part of Osler's entrance was that while the report of his election raised waves of regret and indignation, his actual plunge in the pond at once had the effect of making its surface placid, and this without there being any manifest effort on his part to ingratiate himself with any one or all of the factions. He entered so gracefully and ably, and so naturally, that he seemed almost at once to be one of us, young and old. He was gracious to his elders, cordial to his contemporaries, encouraging to his juniors, and jovial almost to the point of frivolity with all; but the dominant factor that made his way successful with all hands was, to use a student phrase, 'he was up'—that is, he knew his subject and how to teach what he knew.

Osler's disinclination for a general practice, for which a university position was coveted as a portal of entry, and his determination to limit himself largely to consultations, was mystifying to his medical colleagues, most of whom were accustomed to hold afternoon office hours and to engage actively in house-to-house practice. His afternoons, on the contrary, usually found him at 'Blockley', where, as will be learned, after his morning at the University Hospital and some bread-and-milk picked up in the ward, he would betake himself with a group of students to spend the afternoon making post-mortem examinations instead of sitting in his office awaiting patients. Dr. J. C. Wilson years later, in referring to Osler's advent, said: 'First, then, we at once sought to make a practitioner of him. But of that he

¹ H. A. Hare: 'William Osler as a Teacher and Clinician.' *Therapeutic Gazette*, Detroit, Mar. 1920.

would have none. Teacher, clinician, consultant, yes, gladly ; but practitioner—no ! And that with emphasis.’¹

Osler’s newly and rapidly acquired friends were by no means limited to those of his own school, and the households he came particularly to frequent were those of S. W. Gross, Minis Hays, James Wilson, and Weir Mitchell. He testified to this in a long letter written many years later to the Jefferson medical students, just before the war, regretting that he could not pay them a promised visit :

. . . I owe much to the men of this school—let me tell you in what way. The winter of 1869–70 I had a bedroom above the office of my preceptor, Dr. James Bovell, of whose library I had the ‘run’. In the long winter evenings, instead of reading my text-books, Gray and Fownes and Kirkes, I spent hours browsing among folios and quartos, and the promiscuous literature with which his library was stocked. I date my mental downfall from that winter, upon which, however, I look back with unmixed delight. I became acquainted then with three old ‘Jeff’ men—Eberle, Dunglison and Samuel D. Gross. The name of the first I had already heard in my physiology lectures in connection with the discovery of cyanide of potassium in the saliva, but in his ‘Treatise of the Materia Medica’, and in his ‘Treatise on the Practice of Medicine’ (in the yellow-brown calfskin that characterized Philadelphia medical books of the period) I found all sorts of useless information in therapeutics so dear to the heart of a second-year medical student. Eberle was soon forgotten as the years passed by, but it was far otherwise with Robley Dunglison, a warm friend to generations of American medical students. Thomas Jefferson did a good work when he imported him from London, as Dunglison had all the wisdom of his day and generation combined with a colossal industry. He brought great and well deserved reputation to Jefferson College. After all, there is no such literature as a Dictionary, and the twenty-three editions through which Dunglison passed is a splendid testimony to its usefulness. It was one of my stand-bys, and I still have an affection for the old editions of it, which did such good service. (And by the way, if any of you among your grandfathers’ old books find the 1st edition, published in 1833, send it to me, please). But the book of Dunglison full of real joy to the student was the ‘Physiology’, not so much knowledge : that was all concentrated in Kirkes, but there were so many nice trimmings in the shape of good stories. . . .

In this vein he went on to say that he had really been

¹ Remarks at the farewell dinner to Dr. Osler, May 2, 1905. Privately printed.

brought to Philadelphia through the good offices of Jefferson men. The senior Gross, who had died only the preceding May, had been the outstanding figure of his generation in American surgery; and during his Philadelphia period, from the time he succeeded T. D. Mütter in 1856 until his death, his household was noted for its hospitality. Rarely did any waif visiting the clinics in Philadelphia fail to partake of his abundant table. In this tradition his son Samuel W. Gross had been brought up, and it was what his daughter-in-law too had come to regard as merely the customary cordiality among doctors. It was natural enough, therefore, that this couple should have called promptly on the new-comer on a Saturday evening in his forlorn rooms on South 15th Street, where they found a most homesick person pestered by mosquitoes, sweltering in the heat of a breathless October evening; and the outcome was that he took his Sunday dinner with them the following day.

This was the beginning of a great friendship, and nearly every Sunday found Osler at the Gross's for dinner, where he often brought with him a friend or two who might be visiting Philadelphia; among them later on, Palmer Howard, Ross, and Shepherd. One of the few laments about his new environment was the want of afternoon tea for one accustomed to it, and for whom lunch was a trifling matter to be carried in the pocket or picked up haphazard in a hospital ward. But a cup of tea could be assured at the Gross's, where too, after the doctor's office hours, young people were apt to be found, and where the door would be opened at the first touch of the bell by old Morris, the smiling coloured butler, known to so many of Osler's friends in the Baltimore years to come, who was able to make an afternoon visitor doubly welcome. Moreover, 1112 Walnut Street was conveniently near the *Medical News* office, and not far from the College of Physicians Library, where he usually buried himself from five to six in the afternoon.

Osler's irrepressible tendency to practical jokes was by no means uprooted in consequence of his transplantation to Philadelphia, and it cropped out frequently, particularly as an outgrowth of the 'E. Y. D.' tradition. Sir James Barrie,

in his Rectorial Address delivered at St. Andrews in 1922, remarked that his puppets seem more real to him than himself, and that he could get on swimmingly if he could only make one of them deliver the address :

It is M'Connachie who has brought me to this pass. M'Connachie, I should explain, as I have undertaken to open the innermost doors, is the name I give to the unruly half of myself : the writing half. We are complement and supplement. I am the half that is dour and practical and canny, he is the fanciful half . . . who prefers to fly around on one wing. I should not mind him doing that but he drags me with him.

Egerton Y. Davis was Osler's M'Connachie—his fanciful half, who first and last got him into a good deal of trouble. As may be recalled, he first appeared on the scene with the perpetration of a joke at the expense of one of Osler's Montreal friends. At about this time Theophilus Parvin, one of the collaborators on the anonymous Board editing the *Medical News*, an obstetrician of considerable pomposity and a tempting mark for M'Connachie's, wrote an editorial on an obscure topic relating to his special field of work. This was too much for Osler's mischievous half, and a letter postmarked Montreal and signed 'Egerton Y. Davis, Ex-U.S. Army' was soon received by Parvin, commenting favourably on his editorial and citing in full a fictitious case of the sort Parvin had seen fit to discuss. Certain documents relating to a 'MS. of Egerton Yorrick Davis, M.D., late U.S. Army, Caughnawauga, P. Q.' may be found in the Osler library, and in a note prefatory to them occurs the following somewhat mystifying account of how Osler became entangled with this person :

I never could understand about Egerton Yorrick Davis. He is represented to have practised at Caughnawauga nearly opposite Montreal, where his collections were stored in the Guildhall. Some have said that he was a drunken old reprobate, but the only occasion on which I met him, he seemed a peaceable enough old rascal. One thing is certain, he was drowned in the Lachine Rapids in 1884, and the body was never recovered. He had a varied life—in the U.S. Army ; in the North West ; among the Indians ; as a general practitioner in the north of London. I knew his son well—a nice mild-mannered fellow, devoted to his father.

These notes of customs among the Indian Tribes of the Great

Slave Lake were sent to Dr. Molson just after he had taken over the *Montreal Medical Journal* with Dr. Ross. One day I was in the job-room of the *Gazette* office where the Journal was printed, and Connolly said: 'Oh, there is an awful article for the Journal this month—Peter is in despair about it (P. was the compositor) and says Dr. Ross will never print it.' I went over and found these sheets all set up [cf. p. 181]. I told Connolly that Davis had not a very good reputation and to hold the printing until Dr. Ross saw the article. Of course he saw at once it was not fit to print.

I heard nothing more of Davis until I went to Philadelphia. I was on the staff of the *Medical News*, and Parvin in 1884 and 1885 was very interested in the action of the perineal muscles. One day I met Minis Hays the Editor, who said: 'By the way, do you know Egerton Y. Davis who lives somewhere near Montreal? Parvin is delighted as he has sent the report of a case just such as he thought possible.' I said: 'Hays, for Heaven's sake! Don't print anything from that man Davis: I know he is not a reputable character. Ross and Roddick know him well.' 'Too late now,' Hays said, 'the journal is printed off.' So the letter appeared. The case has gone into literature and is often quoted. Minis Hays was disgusted, as Ross insisted that Davis was a joke, and he and Roddick hinted that I of all people was the one who knew anything about him. Some went so far as to say that I was Davis, and the rumour got about in Philadelphia. I never but once met the man. Afterwards I often used his name when I did not wish to be known. I would sign my name in the Hotel Registers as 'E. Y. Davis, Caughnawanga'. Once at Atlantic City after I had had bronchopneumonia I registered under that name immediately after Mrs. Osler and Revere. I had been there a week when a man came up and said: 'Are you Dr. Osler? I have been looking for you for a week: your secretary said you were away and not to be got at. My son is ill here and I wished you to see him.' He had said to Cadwallader Biddle, 'Who is that fellow Davis all the time with Mrs. Osler?'—and was furious when he found that I had registered under that name. They tell in Montreal many jokes about Davis, and father many of them on me. I am always sorry that I did not see more of him, and that I never visited his collections at the Guildhall, Caughnawanga.

WILLIAM OSLER.¹

Osler could thoroughly enjoy a practical joke, even when he himself was the victim, and his own pranks which were merely an expression of his lively sense of fun were what

¹ On the margin is written: 'For an excellent variation of this story, containing all the essentials but the truth, see that of "The Relation of Medical Literature to Professional Esteem" by Dr. Bayard Holmes. W. O.' [Editorials in *Lancet-Clinic*, Cincinnati, Aug. 7–Nov. 28, 1915.]

served to make him such a good companion. But it was not often that his M'Connachie got the better of him; most of the work of the *News* office was serious enough and it was no small task for the four anonymous editors, who met every Wednesday noon in Hays's office at 1004 Walnut Street, to run a weekly journal of twenty-eight quarto pages with its four or five editorials in each number. It was here that Osler was of greatest help to the Board, and he appeared to have an inexhaustible supply of material on hand which he could easily put into shape for publication in an emergency.

As has been seen, he was a rapid, methodical reader with an exceptionally retentive memory, but in addition he had formed the habit of jotting down the gist of what he had read so that it could be drawn on when needed, and moreover he would often augment the notes with some reflections of his own. It was due to this habit of writing as he read that he finally acquired the charm of style which characterized his later essays, and which had already begun to show itself. It was due also to this habit that so many brief notes and postcards of comment and commendation were promptly sent off to rejoice the hearts particularly of young writers whose fledgling articles he happened to have read. Owing to his editorial writing on new and important subjects, his ideas came to be so well formulated and his information so exact in many directions, that when he composed his medical masterpiece five years later in Baltimore it was done throughout with such a sureness of touch and with his facts expressed in such readable form that it immediately superseded all other text-books of general medicine and still continues to hold the field.

During this first year in Philadelphia he usually dined alone at the old Colonnade Hotel, diagonally across the street from his rooms, always it is said with books and manuscript on the table, and he was usually to be seen reading and making notes during the course of the meal. But later on he was accustomed to dine at the Rittenhouse or the University Club, and, though essentially sociable, he had the great gift of appearing to be longer in company than he really was; of being able to fraternize briefly and

to withdraw without his withdrawal being pointed; and if missed and sought for he was certain to be found in the club library where, as is recalled, 'Osler usually cut the magazines others rarely read, like the *Revue des Deux Mondes* and the *Nineteenth Century*.'

From the note previously quoted, it is evident that he did not regard himself as what is called a club man, in spite of the fact that he was much sought after by the most exclusive of them. Certainly in the sense that he much preferred his own table, library, and fireside, when he came to have a real home, to anything a club could offer, he was not 'clubbable'. However, during his bachelor years he perforce was a frequenter of clubs, and though distinctly companionable he was not one to sit about, to sip and gossip. But with dining clubs it was different, for at those he would let himself go and was usually the bright spot of the party—vivacious, friendly, amusing, and with the gift of stimulating others to their conversational best.

There were three dining clubs in Philadelphia to which he belonged—the Medical Club or 'Club of 19', the Biological Club, and the Mahogany Tree Club. The 'Club of 19' consisted of a group of intimates who held the reins in the University of Pennsylvania School, and who at this time met fortnightly in rotation at one another's houses, where 'a club', as was said, was given. This amounted at first to a simple repast of coffee and biscuit, but such plain living and high thinking has given way in time, as it not infrequently does with such gatherings, to a more formal and largely gastronomic function. The Peppers, George and William, H. C. Wood, Tyson, Harrison Allen, H. B. Hare, S. W. Gross, Herbert and William F. Norris, William Goodell, Wharton Sinkler and others had all been or still were members.

As Weir Mitchell had written to Leidy on August 3rd, Osler was socially 'a man for the Biological Club' if they could get him. This they did, and the meetings of this group of scientists always stood out among the pleasantest recollections of his Philadelphia period. This Club, which had been in existence since 1856, was patterned somewhat on the lines of Huxley's X Club which had begun to hold

meetings two years before, though it does not appear that the Philadelphia copy of its London prototype ever had excursions or accepted the formula of 'X's + YV's'. It met more frequently, however, and dined on the second and fourth Friday of each month, there being two guests permitted on each occasion.

As was said by Huxley of the X Club, these friends gathered with no special object beyond the desire to hold together a group of men with strong personal sympathies and to prevent their drifting apart under the pressure of busy lives; and, as he also said, they probably could have managed among them 'to contribute most of the articles to a scientific encyclopaedia'. As was true also of the X Club, no effort was made to perpetuate it, and as the X Club died in 1892 with its most devoted supporter, T. A. Hirst the mathematician, so the Biological Club did not survive Joseph Leidy's death in April 1891. Joseph Leidy, at this time sixty-one years of age and at the height of his intellectual powers, was Osler's chief delight at these meetings. For Leidy's accomplishments and particularly for his skill with a pencil he had unbounded admiration, and though they were of different generations there was great similarity between the manner of upbringing and the early interests shown by these two men, both of them having begun their life's work with a study of the parasitic entozoans. Leidy's magnificent monograph on Rhizopods, illustrated by his own exquisite drawings, had been published by the Government shortly before this time.¹ A copy is in Osler's library, its association value enhanced by the insertion of one of Leidy's incomparable microscopic drawings, secured (as the following letter makes clear) years later, at a time when books were his chief solace.

To Joseph Leidy Jr. from W. O.

Oxford, 16/vi/15.

Dear Leidy, Oh! I would take the risk. Send those Notes over. I want to have them bound with the 'Flora and Fauna'. The steamers are running regularly and we get about four mails a week from America. Could you not steal me one of the original sketches of the rhizopods? You see what a greedy devil I am! Did you

¹ 'The Fresh-water Rhizopods of North America.' *Report of the U. S. Geological Survey*, vol. xii, 1879.

find any memoranda in his papers about the Biological Club? He was the life of the club & the member about whom we all used to rotate—Mitchell, Franklin Gowen, Chapman, Hunt, Wistar and Sellers.¹

As has been seen, Osler had a particularly warm spot in his heart for men of an older generation, whom he always treated like contemporaries; and if in the course of conversation a person's years were in question he was wont to reply: 'Oh, he's just our age.' What he said in a later address,² appreciative of Alfred Stillé, expressed the feelings he always held for an aged member of the profession, who had kept up with the stream:

So far as I know, the chapter on the old man in the profession has not yet been written. To-day, as in the sixteenth century, the bitter *mot* of Rabelais is true: 'There be more old drunkards than old physicians.' Take the list of Fellows of our College, look over the names and dates of graduation of the practitioners of this city, and the men above seventy years of age form, indeed, a small remnant. All the more reason that we should cherish and reverence them. It interested me greatly in Dr. Stillé, and I only knew him after he had passed his seventieth year, to note the keenness of his mind on all questions relating to medicine. He had none of those unpleasant senile vagaries, the chief characteristic of which is an intense passion for opposition to everything that is new. He had that delightful equanimity and serenity of mind which is one of the blessed accompaniments of old age. He had none of those irritating features of the old doctor who, having crawled out of the stream about his fortieth year, sits on the bank croaking of misfortunes to come, and with less truth than tongue lamenting the days that have gone, and the men of the past. He was not like the sage of Agrigentum of whom Matthew Arnold sings:

Whose mind was fed on other food, was train'd
By other rules than are in vogue to-day;
Whose habit of thought was fix'd, who will not change
But, in a world he loves not, must subsist
In ceaseless opposition.

¹ The sketch forwarded by Leidy's nephew is of a magnified *Menopon perale* drawn on the back of a 'Penn Club' card of invitation. With the possible exception of this single example, the Leidy drawings had all been deposited in the Academy of Natural Sciences of Philadelphia of which the Biological Club was an outgrowth.

² *University of Pennsylvania Medical Bulletin*, June 1902.

1885

During all the previous autumn, when time permitted, he had probably been preparing for his Goulstonian Lectures, which were built up from his Montreal material; and, as indicated, he chose as his subject 'Malignant Endocarditis' (acute valvular disease of the heart), on which he was able to speak not only with authority but with considerable originality.

In 1632 a bequest of £200 had been left to the Royal College of Physicians by Dr. Goulston for the maintenance of an annual lectureship, 'to be read by one of the four youngest doctors in physic of the said college . . . between Michaelmas and Easter on three days together both forenoon and afternoon,' for an honorarium of £10. Thus the Goulstonian Lectureship for 250 years had been handed out as a form of compliment to the youngest of the Fellows, reckoned on the basis of their appointment. As has been seen, both Osler and Allbutt were made Fellows in 1883, and though Allbutt in age was several years the senior, his was the last name on the list and hence he was the youngest Fellow in point of duration of his fellowship. For this or some other reason Allbutt had been selected as lecturer in 1884, and as no new Fellows were appointed in that year Osler was given the lectureship for the ensuing one.

Though he had already written a number of occasional papers on the subject of endocarditis, these lectures, which were delivered in London on February 26th, March 3rd and 5th, contained the first comprehensive account in English of the disease, and did much to bring the subject to the attention of clinicians.¹ If one may judge from an enthusiastic account sent home by a quondam pupil,² who admits he 'scarcely kept his seat, with emotion', they must have been warmly received. In the intervals between his lectures he probably made a succession of visits, overlooking none

¹ Orth's successful experiments in producing valvular endocarditis in animals which Osler made the subject of an editorial (*Medical News*, Oct. 24, 1885) were not known until later in the year. Osler had made a few experimental observations himself which were inconclusive. His contribution was largely clinical and pathological, not experimental.

² Letter to the *Canada Medical and Surgical Journal*, Mar. 1885, xiii. 488.

of his old London friends ; and probably, too, was subjected to the usual receptions and entertainments. He evidently visited Horsley, then at work in the Brown Institution on his experimental investigations of myxoedema in monkeys—at least this may be inferred from an editorial on the subject which appeared in the *Medical News* on April 4th soon after Osler's return.¹ It was on this visit also in all probability that Hawksley, the London instrument-maker, perfected for him the type of binaural stethoscope, which replaced the single-tube stethoscopes until then in common use in Philadelphia and known as Pepper's and Da Costa's models. With little variation in its construction, the next generation of medical students everywhere came to utilize this new instrument ; but Osler carefully kept his name out of it.²

To F. J. Shepherd from W. O.

131 South 15th St.,
27/3/85.

So glad to hear from you. Such a budget of Canadian letters came in on Tuesday afternoon and not two minutes after, Sutherland, Mills & Thornton. We had a very pleasant evening together—such fun over the Exam papers in McGill Gazette which also came in at the same time. Mills took them in very good part. Poor devil ! I am sorry for him. I doubt if he will ever *assimilate*, and I think some position away from Doctors would be more suitable. Sorry you will not be down this spring. Get Ross to join Gardner ; it will do him good. I wish he would get away to England & drop a great deal of his 2nd year work. As usual, I have been used much better than my deserts. I mean in connection with the [Goulstonian] lectures. It is a pity that I had not the appointment last year but anyone can see they are virtually Montreal lectures. The more I see here the more I think of the great advantages of the M.G.H. and the general condition of things medical. So glad to hear from Howard that there are prospects of an addition this summer. I am well in harness again & can scarcely realize that I have been away. Love to the children. Best regards to the Frau. If you ever come across anything worth while with reference to the general & special

¹ He was quick to see that it was the next important step in the untangling of thyroid function since that taken by Kocher ; but it led him to make a poor prophecy regarding the future of the surgery of the gland, though the conclusions were doubtless justified by Horsley's findings, which of course did not take the parathyroids into consideration.

² Cf. Wm. A. Edwards : 'A New Binaural Stethoscope'. *Medical News*, Phila., Nov. 7, 1885, xlvii. 527.

evolution of the profession let me know. I am thinking of some such subjects for my address in August.

August and his address as President of the Canadian Association were a long way ahead for one who did things by the day, and he was meanwhile hard at work in other directions. The editorial writing in connexion with the *Medical News* he had assumed in large measure and, as already stated, he was always ready to do more than his share. It was evidently his intention to issue a third Pathological Report from the Montreal General, in which his full series, amounting to nearly 1,000 autopsies, could be recorded. This is apparent from a foot-note to an article on 'The Morbid Anatomy of Pneumonia' read before the Pathological Society of Philadelphia on April 23rd.¹ The article was succeeded by another statistical study on 'The Morbid Anatomy of Typhoid' published in August,² but like other good resolutions of the sort he had by this time become so engrossed in new lines of work and was so nearly swamped by undertaking a chapter for Pepper's 'System of Medicine' that the project was abandoned; and Wyatt Johnston's brief list of his later Montreal autopsies is the only printed record that remains.

But he was by no means to be a stranger at the autopsy table, for even without any official appointment he managed to continue with his work in morbid anatomy. He had succeeded in evolving for himself the same sort of existence he had so enjoyed in Montreal—a doctors' dinner club, an association with a group of men interested in medical publications, his bedside hospital clinics, his detailed studies of post-mortem appearances, and the reports of his observations before a local society. The Philadelphia Pathological Society soon came to take the place of the Medico-Chirurgical Society of Montreal of which he had been so devoted and

¹ 'This, with other articles on morbid anatomy which will follow from time to time, will constitute my third and last Pathological Report from the Montreal General Hospital.' The paper was based on a series of 105 post-mortem examinations of cases of lobar pneumonia. (*Canada Medical and Surgical Journal*, Jan. 1885, xiii. 596-605.)

² This paper gives a study of 56 autopsies on typhoid cases. Its first few pages not only exhibit the extent of his reading but show an historical trend and charm of style beginning to be apparent in his writings.

active a member. Its minute-books show that long before his election to membership, which did not occur until March 12, 1885, Osler had been a frequent guest. The society at this time was a most active one, and it has been stated that those who subsequently gained local eminence in the profession were almost without exception men who were frequent participants in its sessions. In one of his later delightful addresses¹ Osler comments on the purposes and value of medical societies 'to foster professional unity and friendship, to serve as a clearing-house in which every physician of the district should receive his rating and learn his professional assets and liabilities', and so on:

In a city association the demonstration of instructive specimens in morbid anatomy should form a special feature of the work. After all has been done, many cases of great obscurity in our daily rounds remain obscure, and as post-mortems are few and far between, the private practitioner is at a great disadvantage since his mistakes in diagnosis are less often corrected than are those of hospital physicians. No more instructive work is possible than carefully demonstrated specimens illustrating disturbance of function and explanatory of the clinical symptoms. It is hard in this country to have the student see enough morbid anatomy, the aspects of which have such an important bearing upon the mental attitude of the growing doctor. For the crass therapeutic credulity, so widespread to-day, and upon which our manufacturing chemists wax fat, there is no more potent antidote than the healthy scepticism bred of long study in the post-mortem room. The new pathology, so fascinating and so time-absorbing, tends, I fear, to grow away from the old morbid anatomy, a training in which is of such incalculable advantage to the physician. It is a subject which one must learn in the medical school, but the time assigned is rarely sufficient to give the student a proper grasp of the subject. The younger men should be encouraged to make the exhibition of specimens part of the routine work of each meeting. Something may be learned from the most ordinary case if it is presented with the special object of illustrating the relation of disturbed function to altered structure.

Osler's first presentation before the Pathological Society was on April 9th, and Dr. R. M. Landis writes that during the four years of his active membership, in the little first-floor corner room at the old College of Physicians where

¹ 'On the Educational Value of the Medical Society.' Read on the occasion of the centennial celebration of the New Haven Medical Society, Jan. 6, 1903. *Boston Medical and Surgical Journal*, 1903, cxlviii. 275.

the society met, he appeared before it no less than fifty-two times. Just as in Montreal, it was seldom that he did not have some interesting specimen to show, some new technical method to demonstrate, or some subject of interest to present in relation to comparative pathology; for though the opportunity in Philadelphia was less, since the Veterinary Department of the University had only just been established, he took advantage of every possible occasion to pursue his studies of disease in the lower animals. The following letter to H. V. Ogden, written at about this time, shows how he kept abreast of the newer laboratory methods, for Hans Gram's procedure for the differential staining of bacteria had just been published.

131 S 15th St.

Tuesday.

Your very nice sections & photos came safely. That from the tumour of foot is evidently myeloid sarcoma, springing doubtless as they sometimes do, from the periosteum. The other, I am in doubt as to the true nature of & have not yet gone over it very carefully. You will have quite a nice microscopical section. Have you used Gram's method for staining bacilli and micrococci? It is exceptionally good. [He proceeds to fill a page with most minute details.] Do you get good staining fluids in Milwaukee? R. & J. Beck Optic. here (on Chestnut St) keeps good magenta fluid for *Bacillus tubercul.* rapid method, & Hayes, Chemist, Cor. Broad & Walnut, makes good Gent. and Methyl violet stains & Bis. brown. If you don't get them good in M. let me send you some. I shall send you a copy of my Goulstonian lectures in a day or so. Was in Toronto for Easter. All well. Saw Reynolds in Hamilton. He seems thriving. Do you go to New Orleans? I shall go to Winnipeg by the Lakes. Feel quite at home here now. A few consultations have come in. Finished exams. Methods very much behind McGill. Men are pretty bright. Let me know about the stains. So much depends on getting them well made. If you would like some good slides of *T. Bacilli* or top covers charged with sputum containing them say the word. Yours ever,

The consultations had been few indeed—not that he much minded. They are noted in his account-book. There were seven in January, and from February to May only two—at least only two from which fees were collected. It is evident that he was keeping up with pathology, and much of his staining and section-cutting, which must have

been 'free hand' for the most part, was probably done in his makeshift laboratory at the University Hospital. It is recalled that he always carried in his pockets a small bottle or two containing some tissue fixative, and when the opportunity offered of securing some specimen or piece of tissue that needed study, he would take a fragment away with him for microscopic examination.

Most of these fragments, in all likelihood, came from the 'Blockley' Hospital. This venerable institution, originally the Philadelphia Alms-house, which in 1742 was 'fulfilling a varied routine of beneficent functions', has just claim to be the oldest hospital in the States. Having migrated twice during the growth of the city, it finally in 1834 moved from the 'Bettering House' in what is now the heart of Philadelphia, to a farm in the suburbs in the then township of Blockley on the west side of the Schuylkill. Here, far out in the country, the indigent poor and afflicted, the alcoholic and insane of Philadelphia came to be housed—'went over the hill to the poorhouse'; and in the early days when Alfred Stillé served his six months as Resident Physician, patients were bled wholesale, the place was infested with politics, and had the 'immortal smell of an alms-house'. In those days the medical students visiting Blockley used to cross the Schuylkill by the south ferry to a landing on the alms-house grounds to avoid the longer way round over the Market Street bridge. But Philadelphia was rapidly coming to envelop Blockley Township, and in 1870, a few years after Stillé's brother Charles became Provost of the University, the first group of buildings, chiefly medical ones, encased in the green serpentine stone then so much in fashion, were erected on part of the old Blockley estate which had been lopped off from the dwindling property originally owned by the alms-house. The move had been made with reluctance, for the University thereby lost contact with the old Pennsylvania Hospital; but in a few years a hospital of its own in the same architectural style was erected alongside the original medical building, adjacent to but with its back turned haughtily upon the architecturally unpretentious old Blockley buildings with their quadrangle of some twenty acres.

Owing to the proximity of these institutions, for those accustomed to making short cuts it was possible to leave the University Hospital by the rear entrance and enter the Blockley enclosure by a postern gate in the old wall. The advantage of this lay in the fact that near this gate stood the little two-story red brick building which served in Osler's day as the half-way house to the Potter's Field, and here almost every afternoon he was to be found with the group of students accustomed to camp on his trail.¹ Blockley even then was a huge place, not unlike the Allgemeines Krankenhaus in Vienna, or the Salpêtrière in Paris, with over two thousand inmates, many of them with interesting chronic maladies; and the opportunity for post-mortem studies was unusually good.

There were at this time two officially appointed pathologists—good men too—E. O. Shakespeare and Henry F. Formad, the coroner's physician; but they probably were busy elsewhere or had less insatiable curiosity about disease than had Osler, nor did they have a pack of students at their heels. The old servant in the dead-house quickly saw the difference, and whenever an examination had been waived as without particular interest, since no one had come to conduct it, Osler was certain to be informed and to appear with his followers. This finally reached a point at which regulations had to be made that no one should perform an autopsy without the written consent of the official pathologists; but in time Osler himself received a Blockley appointment.²

Many of the labours engaged in by physicians in the dissecting-room are repulsive enough, and those of the dead-house still more so, for there are tasks to perform which a chambermaid or stable-boy would shrink from undertaking; and as O. W. Holmes once said: 'We cannot wonder that the sensitive Rousseau could not endure the

¹ A vivid description of Blockley in the '80's from the standpoint of a student-interne is given in 'Blockley Days' by Arthur Ames Bliss, 1916. Cf. also J. Chalmers Da Costa's 'Old Blockley Hospital', *Journal American Medical Association*, April 11, 1908.

² His election occurred at a meeting of the Board of Guardians, December 28, 1885, at which time seven other physicians were appointed, among whom were his friends Tyson, Wilson, and Musser.

atmosphere of the room in which he had begun a course of anatomical study. But we know that the great painters, Michael Angelo, Leonardo, Raphael, must have witnessed many careful dissections, and what they endured for art, our students can endure for science and humanity.' At the present time the Pathological Department at Blockley is housed in a magnificent institute under the direction of a man who values tradition. But in Osler's day there were none of the modern appurtenances one associates with a laboratory—nothing, indeed, but a storage vault and the small room with its stone table on which the examinations were made. That any special post-mortem records whatsoever, under these circumstances, should have been kept is remarkable; and though he never held an appointment as pathologist, the opportunity to perform an autopsy was never lost and the volumes contain 162 of these records in his own unmistakable chirography. No less than forty-eight of these were cases of pulmonary tuberculosis, an evidence of the fact that he felt there was always something to learn from an examination, no matter how familiar the pathological picture was likely to be. Dr. William T. Sharpless, one of the Blockley internes of the time, writes :

I have most distinct recollections of the Sundays when he came early in the morning and spent the whole day in making necropsies, which we saved for him so far as it was possible to do so. I have known him to begin at 8.00 in the morning and continue at this work until evening. He would hunt for hours to find the small artery concerned in a pulmonary haemorrhage or the still smaller one whose rupture produced a hemiplegia. If he found something especially interesting he would send out the runner to get all the boys and show what a wonderful thing he had found and how interesting and instructive it was. Once in the ward class there was a big coloured man whom he demonstrated as showing all the classical symptoms of croupous pneumonia. The man came to autopsy later. He had no pneumonia but a chest full of fluid. Dr. Osler seemed delighted, sent especially for all those in his ward classes, showed them what a mistake he had made, how it might have been avoided and how careful they should be not to repeat it. In thirty years of practice since that time, whenever I have been called upon to decide between these two conditions I remember that case. I am sure that it had the same effect upon the other members of the class that it had on me and was certainly the right sort of medical teaching. . . .

To F. J. Shepherd from W. O.

University Club,
Friday [May 1885]

When did you fellows get the notion that I was coming up on the 20th? I cannot possibly. I have been away so much (in Toronto April 5th) and am full of work with our short spring session, having four classes a week. And lastly & most important, I must try to economize this year as I am still in arrears, and expenses here are very heavy, though I am living most quietly. I do hope Campbell will not beat Mac. It will be too bad; still I have but little fear of the result. So glad to hear that the building operations have begun. I have written to Kerr, Sullivan & others about the meeting. If there is any prospect of a failure we had better postpone the Winnipeg meeting & hold the session somewhere in the East. Poor Molson! It would have been a sad thing for the Gunn Artillery [Riel rebellion]; I could not go on to N. Y. to see him. He should have come on here. I am struggling towards a little consultation work. Mitchell is most kind in this matter & I have seen some interesting cases with him. That glanders case will make an interesting communication. I hope Howard has saved some specimens. Love to the chicks.

Campbell did not 'beat Mac' though it was a close contest, for on June 21st the Montreal General Hospital Board announced that Dr. Richard MacDonnell had been appointed to fill the vacancy occasioned by Dr. Osler's resignation, having received 93 votes against the 71 for Dr. F. W. Campbell, the rival candidate, who, however, was made an assistant physician. The 'building operations' are to be explained later in a letter from Palmer Howard.

It was at about this time, in May and June of this year, that two editorials appeared in Ross's journal, possibly only inspired but more probably written by Osler, and telling, as dispassionately as possible for the benefit of his Canadian friends, the story of a lamentable altercation which had arisen among the profession in the States.¹ This episode directly or indirectly affected most of the prominent American physicians, for long disturbed their cordial relations to the American Medical Association, and must have been particularly distressing to one like Osler, whose nature 'sloped towards the sunny side'. The story has

¹ 'The International Medical Congress.' *Canada Medical and Surgical Journal*, June 1885, and July 1885, xiii. 696, 762. Also Feb. 1886, xiv. 437.

been told in sufficient detail in Garrison's 'Life of John S. Billings', whom it chiefly concerned; and the only reason for mentioning Osler's part in it is to show how ready he was to take up cudgels in defence of others when he saw injustice being done. An invitation which originated with the American Medical Association to hold the IXth International Congress in Washington had been accepted, and the energetic Billings, as Chairman of the Committee of Organization, had perfected a programme which would have ensured the success of this formidable undertaking had not certain malcontents, dragging cheap medical politics into an international event, succeeded, at a meeting of the 'A. M. A.' in New Orleans, in repudiating the action of Billings's committee. This involved making charges later on against a number of eminent men included in Billings's provisional list of officers, on the grounds that they were not supporters of the code of ethics adopted by the Association. These were men of unquestioned repute but of independent views, like Jacobi and Loomis of New York, and Henry I. Bowditch of Boston; and Osler was sufficiently aroused to call a meeting of the prominent Philadelphians, who passed resolutions declining to hold any office whatsoever in connexion with the Congress as newly organized. Osler made a copy of these resolutions which he sent the same day to H. P. Bowditch with the following explanatory note:

131 S 15th St. Phila.

29th [June]

I enclose you resolutions of Phila. meeting to-day anent Congress. Have written Chadwick & Warren asking them to call meeting of Boston men to express their views of the situation and if feasible to send a Committee to join ours at Flints & urge upon him the advisability of the old Committee resuming its functions and going ahead in spite of all opposition, or failing this—at any rate to refuse to lend his name to the organization as at present constituted. We all feel very sore about the removal of your dear uncle from the vice-presidency, an insult which all respectable members of the profession must resent and which in itself is sufficient ground for severing connection with the men who have got control at present. . . .

The Philadelphia resolutions were followed by similar ones passed both in Boston and Baltimore. It is quite possible

that this action was taken overhastily; quite possible, too, that there was some justification in the umbrage felt in the South and West that the better-known men in the larger cities of the East were unnecessarily well represented on Billings's original committee. However this may be, and it is not very vital to-day, the enlarged original committee withdrew practically in a body, and, instead of eminence, mediocrity came to control the Congress. This unfortunate episode, which for months filled the medical press of America¹ and Europe with public discussion of a petty action, caused a rift in the profession which it took years to smooth over. That Osler felt strongly in the matter is shown by the series of editorials in Ross's journal, but being a man who never harboured a grievance he did not let this controversy affect his subsequent relations with the association. For, with others, he realized that in spite of its having been led astray by designing, ambitious, and selfish men, the A. M. A. would continue to represent the great body of the profession and, with experience, its leaders would come to realize that science recognizes no sectional lines.

During a part of August Osler was evidently in Toronto, dividing his time between his immediate family and the Francis cousins who had left Montreal. He was meanwhile writing editorials, reviews² of the books he was reading, and getting his presidential address into shape for the Canadian Medical Association meeting which, on account of the disorders in Manitoba, was to be held in Chatham in Western Ontario. As is shown by the following note from Palmer Howard, he had written for information, for his immediate purposes, regarding the official Acts regulating the practice of medicine in the Province. Moreover,

¹ *The Medical News* and the *Transactions of the American Medical Association* contain full accounts of this historical squabble from opposite points of view. The discussion, reaching Europe, was participated in by Paget, Virchow, and others, to the humiliation of the better element among the profession in America.

² One of them dealt with Stillé's 'Treatise on Asiatic Cholera', for this was the summer of the last serious cholera epidemic in Europe and there were fears of its reaching America. Epidemics were rife, with yellow fever on the rampage in Vera Cruz and small-pox again in Montreal.

Howard had evidently booked him for a later address in the autumn :

From Palmer Howard to W. O.

Montreal Aug. 24

On the enclosed slip are some statements that may answer your queries. The Act wh. regulated our affairs was that of George the III. Then came the Act—4th & 5th Victoria, providing for reciprocal rights in Upper & Lower Canada. This was succeeded by the Act incorporating the Prof. in this Prov. in 1847—10th year of Victoria—I was writing this letter when yours of the 22nd arrived. We hope to be ready for the 1st but may not be and personally I am so desirous that you should be with us & give *the* address that I feel we ought to postpone the opening till Monday the 5th—That w^d allow of you delivering y^r own opening lecture on the 1st & coming up to us for Saturday the 3rd or Monday the 5th. Dawson will not return until the 1st or 2nd of Sept & nothing can or will be settled until after your Chatham meeting. We shall hope to have a meeting of the Faculty on Saturday Ev^{ng} the 5th by which time *you*, Ross, Stewart, Shepherd etc. will have arrived. I am greatly pleased that you have consented to come down on the 5th and spend Sunday with me. If you came down with Ross, Stewart & Shepherd you might talk over the affair with them so that at the meeting on Saturday they may have some ideas & views to present of a promising and useful nature.

How would it do to postpone the formal opening till the second or third week in Oct^r. & begin the ordinary work without an opening address on the 1st? I w^d prefer the other way, but if it cant be accomplished, why it cant. What Canadian physicians do you think might be asked to attend the ceremony & who w^d be most eligible to make a short address? Would McD^r or Mullin or Malloch of Hamilton be likely to come? or who in Toronto or London? Oh for a half hour's chat with you! In the meantime make your calculation that you will have to open the new building with an address from your ever active brain. We are busy vaccinating ¹ and

¹ 'The disease [smallpox] smoulders here and there in different localities, and when conditions are favourable becomes epidemic. This was well illustrated by the celebrated Montreal outbreak of 1885. For several years there had been no small-pox in the city, and a large unprotected population grew up among the French-Canadians, many of whom were opposed to vaccination. On February 28th a Pullman-car conductor, who had travelled from Chicago where the disease had been slightly prevalent, was admitted into the Hôtel-Dieu, the civic small-pox hospital being at the time closed. Isolation was not carried out, and on the 1st of April a servant in the hospital died of small-pox. Following her decease, with a negligence absolutely criminal, the authorities of the hospital dismissed all patients presenting no symptoms of contagion who could go home. The disease spread like fire in

nothing more; except fuming at plasterers carpenters etc. Jared desires his kind regards to be added to mine. Yours very truly,

R. P. HOWARD.

As President of the association, yet able to look upon the situation of the Canadian profession through the eyes of a teacher in another country, Osler's position gave him opportunity for a plain straightforward talk intended for ears other than those of his immediate auditors.¹ He divided his subject, which concerned in general the growth and development of the profession, into three topics: the organized profession, the medical school, and the medical society; and in the address, which was for him a long one, he dwelt seriously for the first time upon a number of topics which throughout his life he continued to harp upon—the preliminary education of a doctor, the regulation of the medical curriculum, the raising of admission-requirements to the schools, the lengthening of the course, the importance of a proper Federal Bureau of Registration which should have the licensing power; the need of supporting the Provincial boards of health; of regular attendance at medical-society meetings to which every one should come, both to learn and bring something he can teach. It was characteristic of him to add:

By no means the smallest advantage of our meetings is the promotion of harmony and good-fellowship. Medical men, particularly in smaller places, live too much apart and do not see enough of each other. In large cities we rub each other's angles down and carom

dry grass, and within nine months there died in the city of smallpox 3,164 persons.' (Osler's 'Practice of Medicine'.)

¹ 'The Growth of a Profession.' *Canada Medical and Surgical Journal*, Oct. 1885, xiv. 129.

At this same meeting he was down for a paper on 'The Clinical and Pathological Relations of the Caecum and Appendix', which apparently was read but not published, possibly because the pressure of preparing his more formal address had prevented its completion. Had it been, it would have antedated Fitz's classical paper on the subject by two years; and it has been mentioned that he had presented to the Medico-Chirurgical Society in 1880 a case of perforation of the appendix with circumscribed abscess perforating into the bowel. What probably represented the substance of his remarks was not published until a year or two after the ideas regarding primary appendicular inflammations and perforative appendicitis had been generally ascribed to Fitz, who like Osler had first gained his knowledge of them as a pathologist rather than a clinician.

off each other without feeling the shock very much, but it is an unfortunate circumstance that in many towns, the friction being on a small surface, hurts and mutual misunderstandings arise to the destruction of all harmony. As a result of this may come a professional isolation with a corroding influence of a most disastrous nature, converting a genial, good fellow in a few years into a bitter old Timon, railing against the practice of medicine in general and his colleagues in particular. As a preventive of such a malady, attendance upon our annual gatherings is absolute, as a cure it is specific. But I need not dwell on this point—he must indeed be a stranger in such meetings as ours who has not felt the glow of sympathy and affection as the hand of a brother worker has been grasped in kindly fellowship.

He must have gone on to see Howard immediately after this meeting and then have rushed back to Philadelphia, for he sends word to his sister in Dundas that he is ‘treating her shabbily but must be back on Friday’. He could not have been very well, for his mother writes on September 14th and ventures to prescribe for him :

I could not help feeling worried about that horrid carbuncle though I felt you were in the best of hands for treatment and nursing at Dr. Howard’s. Being vaccinated while that was going on must have been very sickening ; you will need some good attention and I hope will prescribe the best of everything for your dear self so there may be no repetition of those evil things if you were able to leave as intended on Thursday we shall look for a note to-morrow and hope to hear that you are much better—would not preparation of Wyeth’s beef, wine and iron, be good for you to take and no trouble if you kept it at hand you know that or good beef tea would be good for others and if you indulge in boils you ought also to take the remedies required to heal them.

And in her chronicles of the family doings of the next week, she hopes his ‘boils and blains are clean gone’ after a few days at the sea with the Hays, and adds that they had all enjoyed reading the President’s address at Chatham and that ‘Aunt [Pickton] thought it equal the wisdom of 107 years of experience—sound sense it certainly was’.

It was customary for him to spend a week or two each summer with the Hays at Point Pleasant on the New Jersey coast. He was given a room on the top floor and was accustomed to spend a part of his day writing, a task often interrupted, however, by his unannounced visits to

the nursery or the sewing-room, where the Hays children would be found, and where another chapter would be told from the story of Arabella Elizabeth, 'a rude little girl who used to put out her tongue, and one day was struck by a fairy's wand because of this habit and went through the earth all the way to Australia, and when she got there found she could not get her tongue back and had, in consequence, a series of most awful times.'

Quite possibly as an outcome of the squabbles over the International Medical Congress, it had seemed desirable for the leading physicians of the country to organize a society similar to that which had already been formed for the surgeons by the senior Gross some five years before. Accordingly, on October 10, 1885, at the office of Dr. Delafield, Drs. Draper and George L. Peabody of New York, R. T. Edes of Boston, Pepper, Tyson, and Osler of Philadelphia being present, the Association of American Physicians had its birth. Who originally suggested this organization is not recorded, but probably it was Osler, who later on was responsible for similar foundations.¹ A name for the proposed society was decided upon; a committee composed of Edes, Peabody, and Osler was appointed to draw up the necessary plans of organization; and there was a full discussion of the men who were regarded as eligible for such an association as was contemplated.

As indicated in Howard's letter of August 24th, plans were under way for the opening of the new building of the McGill Medical Faculty, which had been made possible by Strathcona's original gift. It is probable that in reply to Howard's inquiry Osler had suggested Pepper's name as the chief speaker on the occasion. At all events they went on

¹ In his memoir of William Pepper (*Philadelphia Medical Journal*, Mar. 18, 1899), Osler says: 'For many years those of us whose work lay in the special field of medicine had felt that a society was needed in which we could meet our fellows in the same line of work. As early as 1881 I had written to Dr. Tyson, shortly after my first visit to Philadelphia, urging the organization of such a body, but it was not until the winter of 1885-6 that the initial steps were taken. . . . I remember well in the preliminary meetings how by tacit consent Dr. Pepper assumed the headship, and in formulating the details and in arranging the final organization his executive abilities made the work very easy.'

together from Philadelphia for the ceremonies which had been postponed to October 22nd. There, before a gathering of distinguished guests, of whom the Hon. Donald A. Smith, who made the occasion possible, was naturally the central figure, Osler's appearance was greeted 'with prolonged cheering' on the part of the students; and though he was the first called upon by Howard to speak, his remarks were brief and he gave way promptly to Pepper, who in his usual brilliant style delivered the principal address.

In view of his labours to improve medical standards of education in the States through the example of his own school, Pepper had been a wise choice as speaker. He pleaded for the better endowment of medical schools, 'so as to secure fixed salaries for the professors, who would then cease to have any pecuniary interest in the size of their classes'; and he referred to other munificent gifts to medicine during the past decade—those of Johns Hopkins, of Mrs. John Rhea Barton, of Vanderbilt, and of Carnegie. The customary dinner followed, and 'after the loyal toasts and that of the President of the United States were given', Osler was called upon to speak of medical education in the United States and Canada. This he did in no doubtful terms, and in referring to his brethren 'south of the line', and to the many anomalies of the profession in their country, he is quoted as saying: 'How it is that such a shrewd practical people as those in the United States should have drifted into such a loose, slipshod way of conducting medical schools is unintelligible.'

He must have been somewhat exhausted by all this—what with his 'boils and blains'—for after Sunday supper with Pepper the night of their return he noted in his account-book: 'Weighed on Pepper's scales to-night. 138½ lbs. Thin underclothing, no overcoat, thin frock coat.'¹ This does not sound as though he was particularly fit to start in with his school work; and when one considers the number of his active interests there was perhaps

¹ The 'thin frock coat' betrays the custom of the day, especially for a physician, and even more for a Canadian one. His friend Chadwick of Boston was once called to Montreal in consultation, and appearing in tweeds, was not permitted to see the patient till he had been properly outfitted.

sufficient excuse for him to be somewhat run down. He does not appear, however, to have ever admitted to others such a thing as fatigue—far less to himself. His literary activities during the preceding year, taken alone, must have been a considerable tax on his strength and show his enormous industry; for published in the *Medical News* alone, for the year, thirty of the editorials¹ and nine book-reviews have been traced to him, and there is no telling how many more may have gone to Ross. All this was apart from his less fugitive writings like the Goulstonian Lectures and, above all, the important chapters in Pepper's 'System of Medicine'. These dealt with the diseases of the blood, of the blood-glandular system, and of the heart, constituting an eighty-five-page treatise in itself²—one of the most important sections in this encyclopaedic publication of five volumes.

Most of the distinguished men, whose participation in this elaborate 'System' Pepper had secured, were the same as those who came to be the founders of the Association of American Physicians. On December 29th a second meeting was held in Delafield's office, at which Drs. Loomis of New York, R. P. Howard of Montreal, Minor, Fitz, and the two Shattucks of Boston were present, in addition to those who attended the earlier meeting in October. It was decided

¹ Some of them show the wide range of his interests: for example, that on 'Medicine in China', inspired by the Annual Report of the Soochow Hospital and concluding with the statement that 'in the modern crusade the stethoscope has replaced the sword'. Another on 'The Imperial Customs Medical Reports' dwells on the researches of Patrick Manson into the rôle of mosquitoes in human pathology which he had run across in this obscure publication. Many of the editorials, like those on the recent discoveries concerning actinomycosis and hydrophobia, are an indication of his continued interest in the diseases common to man and animals. None of the newer subjects escaped him, and many of the editorials were reviews of the more recent papers in the leading French and German periodicals to which he had access at the College of Physicians. One may identify many of the editorials by internal evidence, as that on the 'Death of Dr. Wm. B. Carpenter' (*Medical News*, Nov. 14, 1885, xlvii. 546), whose name he couples with that of Huxley and Owen and whose works on Comparative Pathology, and the Microscope, were often consulted in his days at Weston with 'Father' Johnson.

² The style of these admirable articles is unmistakably that which in fuller development was to make his Text-book of Medicine such a successful work.

that the number of members should be limited to one hundred. Delafield was chosen President, with Tyson as Secretary; and a circular was sent out to the selected candidates with the announcement of the first meeting to be held in Washington the following June. He had been home for his usual Christmas visit before this meeting, but his mother wrote: 'We did not see much of Willie, as he was soon off to New York with Dr. Howard.'

CHAPTER XII

1886-9

PHILADELPHIA: THE LAST YEARS

As can be seen, it had not taken Osler long in his new environment to get into his full stride. Meanwhile, on all sides he had made staunch friends, with many of whom he was on terms of such informal relationship that he came and went as he chose; and if there happened to be children in the household his brief and frequent visits were more often to the nursery than the drawing-room. It is said that one of the places where he was best known in Philadelphia was at the toy-counter in Wanamaker's, and that the sales girls used to draw lots to see who could wait on him the next time, because he invariably bought something, made up his mind quickly, and giving an address to which the contraption was to be sent, would depart leaving the small coins of change behind him. He had the pleasant habit of dropping in on people should he happen to be passing by; and should he have been away for a few days he was apt to make a round of visits, stopping only to leave his card, or a book, some flowers, or for a word of greeting or a brief frolic with some one's child. Whether it would be inconvenient never seemed to enter his head. He always behaved with every one as though he was a member of the family, and under these circumstances a visitor can hardly be an inconvenience.

His reputation as a desirable consultant was spreading, and though hard to find, according to local tradition, when found and an appointment made he was scrupulously punctual; and his visits to patients with other physicians were invariably a solace and comfort to both parties. His unusual gifts of human sympathy and of understanding were such that every one with whom he came in contact retained a vivid picture of him. Nor was Osler himself forgetful. One of his patients was Walt Whitman, of whom he has left these fragmentary reminiscences: ¹

Not long after removing to Philadelphia a telegram came from my friend Dr. Maurice Bucke of London, Ont.: 'Please see Walt and let me know how he is.'—to which I had to answer: 'Who is Walt

¹ They were written, as will be seen, in the summer of 1919 when he was recuperating in Jersey.

and where does he live?' It was very stupid of me as I should have remembered that a few years before when Dr. Bucke had been a guest at one of our Club dinners in Montreal he had startled us into doubts of his sanity by extravagant praises of one Walt Whitman, a new seer of a new era, whom he classed with our Saviour, Buddha, and Mahomet. Then I remembered, too, to have seen notices of a book he had written about Whitman; but I had no idea where the prophet lived. The next morning I had the answer: 'Mr. Walter Whitman, 328 Mickle Street, Camden.' In the afternoon I crossed the Delaware River ferry and in a 'clean, quiet democratic street' I found the little, old-fashioned two-story frame house. A pleasant middle-aged woman answered the door, to whom I showed Dr. Bucke's telegram. 'He will be glad to see you—anyone from Dr. Bucke. Mr. Whitman is better to-day and downstairs.' The door opened into what appeared to be a room, but I had no little difficulty at first in getting my bearings. I have seen what the tidy housewife calls a 'clutter', but nothing to compare with the front room, ground floor of No. 328 Mickle Street. At the corner, near the window, the head and upper part of a man were visible—everywhere else, covering the floor, the chairs and the table, were, to use his own description, 'heaps of books, manuscripts, memoranda, scissorings, proof-sheets, pamphlets, newspapers, old and new magazines, mysterious-looking literary bundles tied up with stout strings.' The magazines and newspapers, piled higher than the desk, covered the floor so completely that I had to pick my way by the side of the wall of the room to get to the desk. I thought of Prof. Teufel's room in 'Sartor Resartus'. After a hearty greeting, I had some difficulty in explaining that I did not come directly from Dr. Bucke, but that he had sent me over from Philadelphia to find out how he was. 'There was nothing serious the matter—a transient indisposition which had passed away. With a large frame, and well-shaped, well poised head, covered with a profusion of snow-white hair, which mingled on the cheeks with a heavy long beard and moustache, Walt Whitman in his 65th year was a fine figure of a man who had aged beautifully, or more properly speaking, majestically. The eyebrows were thick and shaggy, and the man seemed lost in a hirsute canopy. . . . My visit was made without any of that preparation—that expectation, upon which Gideon Harvey dwells as influencing so profoundly our feelings. I knew nothing of Walt Whitman and had never read a line of his poems—a Scythian visitor at Delphi! . . . That evening at the Club after dinner I opened the volume of 'Leaves of Grass' for the first time. Whether the meat was too strong, or whether it was the style of cooking—'twas not for my pampered palate, accustomed to Plato and Shakespeare and Shelley and Keats. This has been a common experience; even Dr. Bucke acknowledging that 'for many months I could see absolutely nothing in the book', and would even 'throw it down in

a sort of rage'. Whitman himself has expressed this feeling better than anyone else, speaking of his 'strange voice', and acknowledging that critics and lovers of poetry may well be excused the 'chilly and unpleasant shudders which will assuredly run through them, to their very blood and bones' when they first read him, and exclaim: 'If this is poetry, where must its foregoers stand?' . . . At this time, of the two men Bucke interested me more. Though a hero-worshipper, it was a new experience in my life to witness such an absolute idolatry. Where my blurred vision saw only a fine old man, full of common sense and kindly feelings, Bucke felt himself in the presence of one of the world's great prophets. One evening after dinner at the Rittenhouse Club with Dr. Chapin, Dr. Tyson, Dr. J. K. Mitchell and a few others who I knew would appreciate him, I drew Bucke on to tell the story of Whitman's influence. The perfervid disciple, who talks like [Chaerephon] in the [Apology] is not often met with in these matter-of-fact days. It was an experience to hear an elderly man—looking a venerable seer—with absolute abandonment tell how 'Leaves of Grass' had meant for him spiritual enlightenment, a new power in life, new joys in a new existence on a plane higher than he had ever hoped to reach. All this with the accompanying physical exaltation expressed by dilated pupils and intensity of utterance that were embarrassing to uninitiated friends. This incident illustrates the type of influence exercised by Whitman on his disciples—a cult of a type such as no other literary man of our generation has been the object. . . .

In like vein, through several manuscript pages of what is the first uncorrected draft of an unpublished address, he proceeds to tell of subsequent visits the next year or two, during which time he 'gradually came to realize what Whitman's life and message meant to his followers'.

So there were occasional consultations which gave him contact with interesting people, but it was his students that chiefly occupied his time. His formal exercises as arranged for him in the curriculum could not have represented during this time a particularly satisfactory portion of his week's schedule, and he was at his best with volunteer groups of students in the dispensary or at Blockley. Years later, in 1915, referring in general to the period of medical teaching antedating the new order of things which came about through the example of the Johns Hopkins, he said: ¹

Twenty-five years ago there was not a single medical clinic worth the name in the United States. A most pernicious system prevailed

¹ 'The Coming of Age of Internal Medicine in America.' *International Clinics*, Phila., 1915, iv. 1-5.

—bad for the teacher, worse for the pupils. At the University of Pennsylvania, Pepper held a Saturday clinic and gave two didactic lectures weekly. I gave one clinic, and with Bruen and Fussell and Jack Mitchell held classes in physical diagnosis, which were good enough in their way but the students had no daily personal contact with patients. There was abundant material, and between the University Hospital, Blockley, and the Infirmary for Nervous Diseases, where Henry W. Cattell was my assistant, I was for five years very nearly a 'whole-time' man. There was no clinical laboratory, only an improvised room under the amphitheatre, which was very active the year George Dock was in charge.

He filled his prescribed lecture hours in most unorthodox ways, and often utilized as texts subjects not in the books. For example, the first time he met the class after Austin Flint's death he began:¹ 'Since we met together on Saturday, a veteran of the army of which you are recruits has fallen'; and a large part of the hour was given over to a review of Flint's services to the profession. In the course of these remarks he said:

In the third place, Dr. Flint has done a great work in helping us to arrive at more satisfactory therapeutical laws. In this he no doubt followed the instructions of Jacob Bigelow of Harvard, to whose teaching he probably listened, for he was the author of an essay, one of the most classical in American medical literature, 'On the Self-limitation of Disease.' He laid down there that a cardinal principle in the consideration of the therapeutics of a disease was a knowledge of its natural history; that we had to know the course of a malady left to nature before we could appreciate the action of the medicines given for its cure. At the time that Dr. Flint graduated who would have dared to treat a case of pneumonia from its beginning to its termination without a drop of medicine? No one. The man who would have attempted it would have been looked upon as in the highest degree worthy of blame and censure, and certainly in private practice would not have had the confidence of the family for twenty-four hours.

In this way he chose to mirror in a self-analytical way his own views of therapeutics, and one of the Blockley internes of the day, Dr. Samuel McC. Hamill, writes that:

Osler's rational use of drugs was much too far advanced for staid Philadelphia. Can't you imagine a naturally conservative city to whom the eloquent Wood was extolling the value of drugs and the

¹ 'Remarks to the Class in Clinical Medicine at the University of Pennsylvania.' *Canada Medical and Surgical Journal*, April 1886, xiv. 571.

equally eloquent Pepper recommending a dozen different drugs in the treatment of individual disease, shocked into insensibility by having a young Professor of Medicine, recently come into their midst, go through his wards with his internes and finding nothing definite the matter with his patient say, 'Did we give that last fellow Compound Tincture of Cinchona or Compound Tincture of Gentian?' . . . But in reality Osler was a very good therapist as we internes realized, and used drugs not empirically but scientifically, and in his teaching laid great stress upon the general management of the disease. . . .

Late in March he delivered three lectures¹ on the Cartwright Foundation, before the Alumni Association of the College of Physicians and Surgeons in New York. He devoted these lectures to 'certain problems in the physiology of the blood', a subject which was engrossing the attention of many of the leaders of medicine at this time; and in them he incorporated the results of his own detailed microscopic researches which, begun years before in Burdon Sanderson's laboratory, had continued through the Montreal period with the investigation of anaemia, and were soon to merge into his malarial studies.

As April approached, his mother's letters, which had been telling of much sickness in a family whose third generation was rapidly increasing in number, begin to express eagerness for his home-coming after the winter term, for she sees that his father is becoming more and more helpless. He must have been April-fooling his nephew, for she wrote: 'Poor little Billec was highly indignant at your Apl. 1st postal, but B. B. traced out some invisible sentences much to the lad's satisfaction and you were forgiven the insult. We shall be counting the days now till we see you—stay as long as possible when you come.' He divided his Easter recess between Toronto and Montreal, where a cousin was to be married, and this festivity over, it appears that he

¹ *Medical News*, Phila., 1886, xlviii. 365, 393, 421. His three main topics were: (1) the blood platelets; (2) the degeneration and regeneration of the blood corpuscles; and (3) the relation of the corpuscles to the processes of coagulation. The lectures, which were copiously illustrated by original drawings cut from his note-books, give an exact presentation of the existing state of knowledge on topics to which he had made notable contributions, but it is necessary to read between the lines to determine the real significance of his own personal observations and discoveries.

went to Perth on a Sunday to make a post-mortem examination on an old patient, a physician in whose case every one had made a wrong diagnosis, and found to his amazement a rare tumour at the base of the brain which he subsequently reported.¹ So almost everything he did became grist to his literary mill.

The inaugural meeting of the Association of American Physicians, which Osler in an article thirty years later referred to as 'the coming-of-age party of internal medicine in America',² was held in Washington on the 17th and 18th of June.

Special societies [he writes] had already been successful, and the idea was in the air, so to speak. The suggestion came, I believe, from Dr. James E. Graham, of Toronto, to Dr. James Tyson. Pepper was actively sympathetic and took a leading part in the organization. From the start it proved a great success. Francis Delafield, the first President, struck the true note when he said: 'We want an association in which there will be no medical politics and no medical ethics: an association in which no one will care who are the officers, and who are not; in which he will not ask from which part of the country a man came, but whether he has done good work, and will do more; whether he has something to say worth hearing, and can say it.' The leading clinicians and pathologists of the country were present. One man whom we had all hoped to have with us, the Nestor of clinical medicine in the country, Austin Flint, had recently died, and some seniors who attended this meeting did not care to join the Association. Meredith Clymer an old pupil of Andral and Chomel, was an interesting link with the past. Looking over the list, it is sad to see that only twenty-five of the original seventy-five members survive. . . . The association set a standard, promoted good-fellowship, encouraged research among the younger men, and has led to the formation of many societies dealing with various aspects of medicine and pathology. . . .

His own contribution to the programme of this first meeting was a paper of minor interest dealing with a rare condition of the valves of the heart, but there were many other communications of more than ordinary importance: by William H. Welch of the Johns Hopkins on 'An Experi-

¹ 'A case of Cholesteatoma of Floor of Third Ventricle and of the Infundibulum.' *Journal of Nervous and Mental Diseases*, N.Y., 1887, xiv. 657-73.

² *International Clinics*, Phila., 1915, iv. 1.

mental Study of Nephritis'; by F. W. Draper on 'Pancreatic Haemorrhage'; by Reginald H. Fitz of Boston on 'Diseases of the Appendix'; by Weir Mitchell on 'Observations upon the Knee Jerk', for Westphal's recent discovery was coming to be looked upon as an important diagnostic sign in diseases of the nervous system; and particularly one by W. T. Councilman from Welch's laboratory on 'Certain Elements Found in the Blood of Malarial Fever'. Thereby hangs a story, illustrative of Osler's methods of work.

During the year 1880, a French army surgeon, Alphonse Laveran, while stationed in Algiers had discovered certain pigmented bodies in the blood cells in cases of malaria, of which a report was made before the Academy of Science in Paris. Though promptly taken up by the Italians,¹ in America little attention had been paid to this discovery previous to Councilman's work in Welch's laboratory in Baltimore, where malaria at this time was rife. Possibly no member of the association, not even Councilman, had had an experience equal to that of Osler with microscopical studies of the blood; and consequently when Osler arose and expressed scepticism, 'speaking in the fulness of his ignorance', as he said later, regarding Laveran's claims, not all of which Councilman had been able to verify, his remarks must have had considerable weight. Osler stated that he had examined the blood of six cases, in three of which at the time of the chill he had seen the amoeboid bodies, but he was inclined to believe they were nothing more than vacuoles in the cells. Even Councilman was doubtful as to whether they represented the cause or the effect of malaria; but Sternberg, who was present, warmly upheld Laveran's work and both he and Councilman pointed out that if Osler had stained his preparations he would have been convinced that he was dealing with actual organisms.

¹ It is quite probable that the long delay in following up and verifying Laveran's discoveries was due to the claims by Swiss and Italian investigators of the discovery of a bacillus of malaria which proved, as Osler said, 'an *ignis fatuus* which had led many astray'. To arrive at the truth is a long and tedious process, and it may be noted that at this time scepticism was being expressed regarding Pasteur's work on hydrophobia, and even the tubercle bacillus was encountering formidable opposition, for many claimed that it was merely a concomitant of the disease and not its cause.

In the wards at Blockley, to which he now had official access, there had been a good many patients with malaria during the spring, and Osler had made full notes of the cases whose blood he had had an opportunity of examining. In the very first of them, on April 20th, he had unquestionably seen and made drawings of the amoeboid stage of the malarial parasites, though he was evidently uncertain as to their interpretation.¹ Immediately after the meeting he returned to Philadelphia and set to work to satisfy himself as to the truth of the matter. He must have spent countless hours over the microscope, for his note-book, which is extant, contains observations on the blood of seventy cases, with notations and frequent illustrations of what he had observed. It was the beginning of his great interest in malaria, but it was not until his studies were resumed in the autumn that he became fully convinced of the truth of Laveran's claims regarding the protozoal origin of the disease.

He had expected to get away early in July for his holiday and had hopes of a trip to England, though of this he was doubtful, for as he wrote to his sister: 'I may be too hard up, but I should like to attend the British Association Meeting in Dublin and keep up my connexion with English friends.' But his malaria studies kept him in sweltering Philadelphia well on into the month despite appeals from his mother, who in her birthday letter says that 'Toronto is cool', that she is 'dotting off the days till the 21st', and that awaiting him 'there are 14 or 15 children at the Island, who are revelling in the water and escape drowning wonderfully!'

With evident reluctance, particularly after his experience

¹ His scepticism is a little difficult to understand, particularly as the *Medical News* for January 16th contained an account of the researches by Marchiafava and Celli, which had fully corroborated those of Laveran; these Roman investigators had even recorded an instance of the experimental transmission of the disease in man. Malaria was coming to be a topic of great importance, and it was in the course of his celebrated address before the British Medical Association on August 11th of this year, at Brighton, that John S. Billings stated in regard to the malaria-ridden regions of the Southern States, that despite some few exceptions 'malaria and science were antagonistic'.

with 'Case xvii, July 14, 1886', when he saw the plasmodia in abundance, Osler broke off his studies for a brief visit home and a subsequent five weeks' holiday in British Columbia—his first prolonged vacation in many years. This trip, a voyage of inspection, was made over what was then called the Winnipeg Western Railway in company with his brother Edmund and a group of men who were financially interested in the future development of the great country to the north and west. There is little record of this outing¹ beyond some doggerel lines, written by Mr. F. Faithfull Begg, one of the members of the party, which describe 'a man of pills, in medicine learned in human ills', whose every vein 'the milk of human kindness fills'. It was probably an invigorating life in the open, much of it passed in 'bark canoes, with noble red-men for their crews'; and in an address written long afterwards Osler drew upon his memory of the trip for the following figure:

There are two great types of practitioners—the routinist and the rationalist—neither common in the pure form. Into the clutches of the demon routine the majority of us ultimately come. The mind, like the body, falls only too readily into the rut of oft-repeated experiences. One evening in the far North West, beneath the shadows of the Rocky Mountains we camped beside a small lake from which diverging in all directions were deep furrows, each one as straight as an arrow, as far as the eye could reach. They were the deep ruts or tracks which countless generations of buffalo had worn in the prairie as they followed each other to and from the water. In our minds, countless, oft-repeated experiences wear similar ruts in which we find it easiest to travel, and out of which many of us never dream of straying.²

The 1st of September found him back in Philadelphia again interned at Blockley with his microscope, and a few

¹ One incident which W. O. recorded in his 'Notes and Comments' (*Canada Medical and Surgical Journal*, Jan. 1888, xvi. 377 et seq.) was to the effect that a Mr. Fred. Brydges, who had 'kindly met their party at the Portage to escort them over the Manitoba and North Western Road', told a remarkable story of a new-born infant which had fallen from a moving train and survived. Evidently this story was disbelieved by his Montreal friends, for it had an E. Y. D.-ish flavour.

² 'The Importance of Post-graduate Study.' *Lancet*, Lond., July 14, 1900, ii. 73.

days later there appeared a long editorial in the *Medical News* on 'The Malarial Germ of Laveran'. He still was hesitant, without further evidence, to accept the bodies he had seen as the causal agent of the disease, despite their constant presence in acute cases. Further confusion had been recently added to the subject by a paper in Virchow's *Archiv*, which described the finding of a micrococcus in the blood of malaria patients, and Osler states that 'the most rigid scrutiny should be exercised in accepting evidence, and it is to be hoped that those who have the opportunities and the necessary technical skill will soon place us in a position to give an opinion upon the *Plasmodium malariae*'. Both opportunity and technical skill were his, and by the end of the month one of the cases 'showed crescentic forms distinct and abundant on several examinations'. It is apparent from his sketches that he had seen and figured Laveran's flagellate forms; and, no longer with any shadow of doubt in his mind, on October 28th, before the Pathological Society, he gave in detail the results of his observations, which were subsequently published.¹

Osler's Baltimore students in later years, who became accustomed to the tedious search for the malarial parasite in all obscure fevers, can realize what an amount of time the study of his seventy cases entailed, with its effort to determine in each instance what relation the organisms in their various stages bore to the recurrent paroxysms and in what way they were influenced by medicines; for it was then largely new ground, and hourly examinations of the blood were required. He gained the impression that the pigmented bodies in the red corpuscles were more numerous before than during the attack, and the examples which he saw of 'the remarkable segmentation of the parasite resulting in its rosette form' were in each instance observed during a paroxysm. Perhaps the most interesting paragraphs of this important paper, which put Osler in the first rank of the investigators of malaria (with Laveran, Richard,

¹ 'The Haematozoa of Malaria.' *Transactions of the Pathological Society of Philadelphia*, 1887, xiii. 255; also *British Medical Journal*, 1887, i. 556. In this paper he makes a frank acknowledgement of his former incredulity 'that flagellate organisms should occur in the blood'.

Marchiafava and Celli, Golgi and Councilman) were those in which he discussed the nature of the parasites, a topic of particular interest to him in view of his earlier studies on the parasites he had seen in the blood of the frog. Haematozoa had also been seen in fish, in rats, in birds; and he gave an account of Surra, a disease affecting the horses, mules, and camels in India, which his friend Griffith Evans had recently described in the *London Veterinary Journal*, attributing it to a blood parasite.¹ Osler regarded the flagellate form as the adult condition of the malarial plasmodium; but it remained for one of the Johns Hopkins students, W. G. MacCallum, while studying malaria in birds, to first observe the conjugation of the organisms and thus fully to explain their flagellate form.

It is somewhat difficult, in view of the present knowledge of the full life cycle of the malarial parasite, to project oneself back into the obscurities existing in the '80's; and a full decade was to elapse before Ronald Ross in India proved that the mosquito played the part of an intermediary host in the transmission of the disease—a discovery which has led to the practical extermination of malaria from seriously infected regions like the Roman Campagna and the Isthmus of Panama whence, indeed, one of the patients in Osler's series had come. To most people of that day, lay and professional, the shivering ague was caused by a mysterious nocturnal 'miasm', and it took years to introduce into the southern states, where the disease was pandemic, the idea which Osler quickly grasped and adopted, 'that in malarial regions the examination of the blood will prove in skilled hands a most valuable aid in the diagnosis of many

¹ In the copy of Evans's 'Report on "Surra" Disease' (1885) in Osler's library, he has written: 'When I was a student with Bovell at Toronto, 1868-9, Griffith Evans, who was stationed there as veterinary surgeon to the Artillery, was much interested in the microscope and frequently came to Bovell's rooms to help in the preparation of specimens. He had previously been stationed at Montreal, where he had graduated in medicine from McGill in 1864. When serving in India he made the discovery of the parasites in the blood in Surra—the first trypanosome disease to be described. On his retirement he went to Bangor, where he still lives, a hale, hearty octogenarian. He sent this, and a book of photographs of famine scenes in India, 8 Jan., 1918.'

obscure cases'. A few years later in his Baltimore clinic the regulation was put into effect that no diagnosis of malaria be made without a microscopic demonstration of the parasite. It was a most important matter, for nearly every fever in the South at the time was loosely called typho-malaria and treated with quinine.

Obviously he had become so deeply engrossed in his clinical work, now centring itself more and more at Blockley, that there were few occasions for abstraction when he might be found scribbling James Bovell's name on his pad. But he nevertheless had a moment of nostalgia at the thought of the McGill opening session :

To F. J. Shepherd from W. O.

131 South 15th St. Phila.
12th [Oct., 1886].

How are you all? It seems long since I have heard from any of you. I felt very like skipping North on the 1st, for your introductory lecture. I felt rather homesick. I still, at times, feel like a stranger & a pilgrim though everyone is very kind and I have got on better than I could have anticipated. I must arrange to spend some days in Montreal at Xmas, and run up also to the Carnival if you have one this Winter. Everything goes on here as usual. My hospital work at Blockley keeps me very busy as I have 80 patients to look after. I am able however to do much more satisfactory ward teaching than heretofore. Hays asked me the other day about a note of yours in re Canada Med. Association & the Quebec profession. He thought it would rather stir up dust & I agreed with him. . . .

It must have been about this time that he paid his first visit to Baltimore, in view of the following letter postmarked November 8, 1886, to his old friend Dr. John A. Mullin of Hamilton. It is quite possible that he may have gone over for the purpose of checking up his malaria observations with the work which was in progress there :

Sunday.

Your most interesting specimens came to hand on Thursday & I demonstrated them at 11 a.m. to the class as the typical lesions of Addison's disease. The caseo-fibrous changes are most marked & there is very little normal tissue to be seen. Do send me a note of the case. You should report it as cases are so rare, tho' they seem to come in runs as this is the fourth which has come under my notice since May 1st. . . . I would have acknowledged receipt sooner but I have been 2 days in Baltimore seeing Johns Hopkins,

& more than delighted. It is the univ. of the future & when the Med School is organized all others will be distanced in the country. When you come down in May with Malloch we shall go on for a day or two. Goodell was asking for you both. You made quite an impression on him. I am over head & ears in work, among other things studying the Malarial germ which seems a pretty constant body. Kind regards to Mrs Mullin & to Malloch. So glad you have sent the boy to Port Hope.

During all this year, despite his intensive pursuit of the malarial parasite, there was no let-up in his 'inkpot career'. 'Both pen and brain got a deal of practice in Philadelphia', as he admitted in later years. Besides the Cartwright Lectures and the six or eight more serious clinical and pathological papers which were published, he had, as he expressed it, 'devilled for Pepper for his "System of Medicine", writing in addition to my own sections, those of Janeway on certain of the diseases of the heart.' There were also numerous contributions to the Pathological Society and an endless succession of editorials, of notes, and of book reviews for the *Medical News*.¹ In addition to all this he had been persuaded by Minis Hays to take over another task in connexion with the rejuvenation of the *American Journal of the Medical Sciences*, a journal founded in 1827 and so with one or two exceptions (the *Edinburgh Medical Journal*, 1803; the *Lancet*, 1823) the oldest medical periodical in the English language. Its book reviews were to be made a special feature of the rejuvenated journal and its January issue contained two of them from Osler's pen, one signed, the other not. The latter was a review of Pepper's 'System', which pointed out 'an extraordinary mistake' by the author (W. O. himself) of the section on 'Diseases of the Blood and Blood-glandular System': moreover, the review when submitted was signed 'E. Y. D.' but the editors saw fit to omit these initials.²

¹ Forty-nine of the editorials during 1886 have been identified as his, and there are probably many more, sometimes two or three appearing in a single issue. They were on a great variety of subjects.

² Another feature of the journal in its new form was its 'Summary of the Progress of Medical Science', and in the April issue Osler's name appeared in charge of the section devoted to Medicine. This he attempted to conduct single-handed, though soon (October 1886) the names of J. P. Crozier Griffith,

1887

At the end of his Christmas holidays, spent as usual in Toronto, he visited his friends at McGill, taking Palmer Howard back with him to Philadelphia for the Centennial Exercises of the College of Physicians held on January 3rd in the old home of the College, at 13th and Locust Streets. Ever since his advent in Philadelphia Osler had frequented the College Library, which then boasted some 34,000 volumes. Indeed only a year had elapsed after his election as Fellow on January 7, 1885, before he was put on the Library Committee with Weir Mitchell, Minis Hays, and F. P. Henry—an evidence of his great popularity, for, as the present librarian testifies, such a thing has never occurred before or since. He served on this committee until he left for Baltimore; and to the end of his life retained the liveliest interest in the affairs of the College, to whose library a goodly number of its more precious books were subsequently added under his auspices.¹

So it is not surprising to find him taking an active part in the celebration of this year at which honorary fellowships were conferred upon distinguished guests, among whom was Palmer Howard. Indeed the occasion brought together an assemblage of men who either were already reckoned among Osler's friends or who subsequently came to be—among them Hunter McGuire of Richmond; Jacobi and Draper of New York; James Chadwick, George B. Shattuck, and H. P. Bowditch of Boston; Sternberg, Edes, and John S.

his assistant, of Walter Mendelsohn of New York, and subsequently of W. S. Thayer and George Dock, appeared as his coadjutors.

¹ His method is illustrated by the following incident related by Dr. Keen: 'No institution in Philadelphia was more cherished by him than the College of Physicians and its splendid library. He was always giving notable books to it. Even after he went to Oxford his benefactions did not cease. Once he wrote to Mitchell that Quaritch had a superb copy—the best he had ever seen except the famous Grolier copy in the British Museum—of the first printed edition of Celsus (1478), beautifully bound, as became its author, which could be had for £80. He wanted the College to have it and wrote: "I'll give \$25. Can't you bleed the Fellows for the rest." Mitchell promptly phlebotomized the other Fellows and the book now ornaments our shelves.' He also bequeathed to the College his finest manuscript, Bernard de Gordon's *Lilium Medicinæ*, 1348.

Billings of Washington. But the central figure was Weir Mitchell, who had been elected President of the College for this its centennial year, and who gave in a charming commemorative address 'an historical account of the growth and position of the profession in Philadelphia. This entailed a medical genealogy of the College from the time its thirteen founders—'some in Quaker dress and some in knee-breeches, most of them carrying the gold-headed cane and the meditative snuffbox, some with queues or powdered wigs'—who, probably dominated by Benjamin Rush, first met in the little house on Fifth Street. And Osler, no less interested than Mitchell in local history, subsequently drew upon the same theme to say :

The College is local, and the property of a local organization, but John Jones, Morgan, Shippen, Rush, Wistar, Dorsey, Dewees, Barton, Chapman, Wood, Hodge, Meigs, Gross and many others whose names we honour, belong now, not to Philadelphia alone, but to the history of the profession of this country. The social force and influence which physicians have always exercised in Philadelphia is not a little peculiar, and there is much truth in the statement that 'he is, and always has been, relatively a more broadly important personage here than elsewhere'. Certainly, physicians have played a large part in our public as well as private history, and they have 'sustained in noble succession the prominence of this city in all that lifts our art and its sister sciences above the common level of applied usefulness.

No one ever entered more whole-heartedly into making a success of celebrations of this sort, but there was other business of a more serious nature in hand, for with the beginning of the year he had resumed his studies of malaria with an attempt to differentiate the organisms of various types of the disease—quotidian, tertian, and quartan, anticipating the observations of Marchiafava and Celli published two years later. He evidently sent his papers to Laveran, who replied enthusiastically, saying: 'J'ai été pendant plusieurs années très embarrassé pour classer mes parasites ; la place que vous leur assignez me paraît leur convenir tout à fait.' Osler had written at this time a general summary of the malaria question which appeared in a March issue of the *British Medical Journal*, and from

¹ *Medical News*, Phila., Jan. 8, 1887, l. 29. In this same issue is Osler's editorial on the centennial, from which excerpts have been taken.

now on his particular interests, so far as his publications indicate, lay in the direction of utilizing the information already gained, that is in differentiating cases of malaria from other obscure febrile conditions, rather than in further studies of the parasite.¹ His writings more than those of any other of his contemporaries served to stimulate interest in malaria and to popularize throughout the profession the knowledge necessary for its proper recognition, for it was evident that the diagnosis could no longer remain merely a matter of probability based on recurrent chills and an 'ague cake', but was capable of exactitude with the aid of a microscope. Osler's enthusiasm was contagious, and many of his pupils and assistants got to work on the subject. In this way he fathered some of the important subsequent discoveries which were made in his Philadelphia and Baltimore clinics. Nevertheless, as he subsequently admitted: 'It was a long uphill battle; most sceptical myself at first, there were many of my colleagues at Philadelphia who could not be convinced, and my good friend Dr. Payne of London, pathologist at St. Thomas's, on the appearance of my paper in the B. M. J. of 1887, wrote confidentially urging me to be more careful in the future, as what I had described and figured were evidently artefacts.'

By his own precept and example Osler stimulated his students to observe, record, and publish. He had, as Clifford Allbutt has said, that wonderful power, only possessed by a few great teachers, of 'inseminating other minds'.

Wherever he went [writes W. W. Keen] the wheels began to go 'round', things began to be done, and all for the good of the pro-

¹ This was not entirely so, however, for in the discussion of a second paper by W. T. Councilman before the Philadelphia Pathological Society early in the following year, Osler stated that he had made a series of observations on the blood of fishes and birds, in view of the statement that some of the forms described by Laveran had been found in the blood of carp and some water-fowl. Professor Baird of Woods Hole had offered him facilities for this work and had furnished him with forty-five carp in which he had failed to detect organisms. Nevertheless, in the blood of a goose sent him from Ontario by Dr. G. A. MacCallum (father of his pupil W. G.) with the statement that the bird had malaria, he had found one or two pigmented bodies. They were not numerous, however, nor was the temperature elevated; nor, so far as could be made out, did the goose have chills. (*Medical News*, Phila., Jan. 14, 1888, lii. 54.)

fession and of the community. The dry bones as in Ezekiel's Vision gathered themselves together and became imbued with active life. The diligent were encouraged to become more diligent, the slothful were shamed into activity. He was a fount of inspiration. His personal influence extended more widely and to better purpose than that of almost anyone I have ever known. Weir Mitchell and William Pepper were of the same type, and when this powerful triumvirate were gathered in Philadelphia they had no rival the country or possibly the world over.

His method of 'insemination' took various forms, though it was often merely a hint of a thing worth doing scribbled to some one on a postcard. Dr. George de Schweinitz treasures two brief notes, one of which spurred him to write the text-book which has gradually 'swollen', as he expresses it, through nine subsequent editions. On his appointment as ophthalmic surgeon to Blockley, Osler promptly sent (May 7th) a few lines of congratulation, saying: 'It will give you a splendid field (of vision).' One Sunday evening shortly after this he found Osler reading, as was his custom, in the library of the Rittenhouse Club. Merely a wave of the hand passed between them, but later on when Osler got up to leave he tossed into de Schweinitz's lap a slip of paper on which was written the following: 'A Manual of Ophthalmic Surgery for Students. By G. E. de Schweinitz, &c. &c. &c. Phila. 1889. *A suggestion—Verb. sap.*'

Encouraged by the success of a series of reports on rheumatism which he had sponsored and which the *Medical News* had published the preceding year, he undertook at this time two other therapeutic surveys: the first was on 'Pneumonia in the Philadelphia Hospitals',¹ in which Pepper, Bartholow, Meigs, Tyson, Wilson, and he himself participated. It is interesting to read Osler's brief statement that there were two groups of pneumonia patients—'the alcoholic and the temperate; the majority of the former die in spite of all treatment; the majority of the latter get well with any, or with no, treatment'—and to compare this with the quinine, antimony, alcohol, and antipyretics, to mention but a few of the drugs advocated by his contemporaries. This Philadelphia report was followed by

¹ *Medical News*, Phila., Mar. 5, 1887, l. 260.

others from the leading physicians of the New York and Boston hospitals, and these in turn by Osler's editorial summary in which it was pointed out that 'pneumonia has come to be known as a specific self-limited disease and the only rational treatment is the expectant one'; but he concludes with this hopeful paragraph:

It may be, however, that to the generation which will follow, at these same hospitals, the men whose practice we have given, the symptomatic and expectant plan at present in vogue will appear as crude and unscientific as does to us the active antiphlogistic treatment, with venesection *coup sur coup* and antimony to repletion.¹

Later in the year appeared another series of papers, similarly sponsored, on 'The Treatment of Typhoid in the Philadelphia Hospitals', in which the therapeutic fashion in each of them was put on record. This in turn was followed by reports of the routine treatment employed in the New York, Boston, and Montreal hospitals; and in his subsequent editorial, in which the main facts were assembled, Osler said that the reports showed 'a remarkable uniformity of opinion, with hygiene, diet and nursing as the essentials'—a conclusion hardly justified by the evidence, it may be added.² In laying before the profession these examples of the inconsistency and fashion displayed in the use of drugs, his purpose was accomplished. The profession could draw its own conclusions and it was not necessary to rub the lesson in. For his own part he became ere long a warm advocate of Brand's system of cold bathing in typhoid—a revival of the Currie method of treating fevers. The students and nurses of the early years of the Johns Hopkins will vividly recall the laborious tubbings of these cases which were then so common. To-day both tubs and typhoid have wellnigh vanished, together with malaria and the mosquito, thanks to the sanitary transformation of Baltimore, in effecting which Osler's voice, so often raised, played no little part.

¹ Osler's unorthodox views on the treatment of pneumonia by no means went unchallenged, for veratrum viride and antimony continued to prevail, as he confessed in 'Notes and Comments', March 1888, *Canada Medical and Surgical Journal*, xvi. 508.

² *Medical News*, Phila., Dec. 10, 1887, p. 677; and Dec. 24, p. 739.

The year passed much as the preceding one. He was busily engaged in his clinical teaching, in laboratory studies, attending meetings, and for ever writing. More busy than ever with his pen, nevertheless he took on two additional tasks, one of which was a series of 'Notes and Comments' which he sent to Ross for the *Canada Medical and Surgical Journal*, to whose pages a few years before he had been such a copious contributor. In these brief essays, consisting of notes on 'practice, books and men', he let himself out to his Canadian readers in a delightful, semi-serious, and philosophical vein suggesting the literary style of his later essays. The notes cover about four pages in almost every issue of the journal for the next two years, the first instalment beginning with a discussion of Pasteur's work on rabies and the violent attack to which he had been subjected in the Paris Academy; he then comments on the opposition to Koch which 'seems rank heresy in these days of staining fluids and cultures . . . even Dr. Bastian has not said anything since the debate at the International Congress in London.' And he adds that though there are protests in Germany and France, and a remnant still in this country who stand out against the germ theory, 'the younger generation of workers, to a man, have stained fingers'.

In his 'Notes and Comments' for May he confessed that 'with the return of spring comes the annual worry of examinations. It has never been my good fortune to be connected with an institution which relieved the teachers of the responsibility of examining the students they have taught. I suppose such a duty should not be a worry, but it is in certain ways, particularly if one has both a heart and a conscience.' His clinical assistant at the time, Dr. Crozier Griffith, recalls telling him one day that the boys were very much afraid of his approaching examination, and he replied: 'I mean them to be; I am examining in the interest of the public, not of the students.' But this, one fears, was an idle threat, for he could never bring himself to 'pluck' students whom he had come to know and be fond of, however much he might talk in the open about high standards and rigid tests. The combat which he waged within himself over these matters, for he was continually

protesting and writing on the subject, is both tragic and amusing, and after his transfer to England his personal feeling that it was an examiner's duty to dwell upon the student's character and his method of attacking the problem at hand rather than on the number of facts he could retain in his mind, continually ran counter to the prevailing custom; but his criticisms of English Examinations must be deferred to later chapters. Between the lines of this note to Ross's journal the confession of his own weakness stands exposed, for he says: 'To reject a man in his final examination is no light matter. In every Faculty there are one or two members so kind-hearted that they cannot pluck a candidate. Sympathy for the man excludes all sense of justice.' And yet in the next breath he adds: 'A lively sense of responsibility to the public admits of no such sentiment, and if there is an occasion which demands strictness and firmness, it is when we are asked to decide whether or not a man is fit to take charge of the lives of his fellow-creatures.'

A few of Osler's letters of this period have been recovered; and though they hardly deserve this designation they are characteristic of his laconic brevity in correspondence. Being mostly on postcards their chronology can be established, for he rarely took time for such superscriptions as full dates; '18th' or 'Tuesday' or perhaps even 'Oct.' would satisfy him; his i's and t's and punctuation suffered from equal neglect; and for conjunctions he resorted to a peculiar symbol of his own representing an ampersand. But then, many a budding correspondence has been blighted by too much attention to these details, as well as by the search for envelopes and the folding, licking, and stamping to which a postcard rises superior. The notes—and there are many more of the same kind—were to his friend and colleague, J. H. Musser:¹

¹ Musser and Ogden seem to have been the only ones who preserved their brief messages from Osler during the '80's. It is for this reason that their names appear to dominate his correspondence, though the notes quoted are merely examples of countless ones he must have showered upon other people as well. His postcard habit was doubtless established partly for reasons of economy, partly for convenience, and stamped correspondence cards on which he could quickly scribble a note were always at hand on his desk.

[May 13, 1887.]

Dear M I never thought of it & then we had sat down when you came in I am glad you didnt order anything else Docks address would be Frankfurt on Main care of Prof Weigert I do not see his letter I fear it went into the WPB I see it is Bruce you ask after he is at the Lafayette Bruen is still south somewhere
Yours W. O.

Saturday a m [May 23, 1887].

Dear Musser I wrote out the cheque yesterday a m & was interrupted & forgot to tear it off W. O.

29th [May, 1887].

I have just had a note from one of my nephews stating that he was coming to Phila. for his holiday on the 7th As I asked him to come & as his vacation is a fixed time I cannot disappoint the young codger by slipping away wh means I shall not see C. this year.¹ I am very sorry as I feel the honour On your broad shoulders the burden will rest Yours W. O.

The two first notes relate undoubtedly to the equipment for a small clinical laboratory. He and Musser had agreed to contribute \$50 each for the purpose, and Dr. George Dock, who since his graduation had been working as a volunteer in the Dispensary with Musser, was to be put in charge. It is difficult, to-day, to realize that up to this time, far from there being a laboratory, there was no microscope, except Osler's, in use in the University Hospital. To be sure, Dr. Fussell, a classmate of Dock's, had been taught to make microscopic examinations of sputum, but up to this time clinical microscopy in the hospital may be regarded as a thing unknown. In all this Pepper had very little interest, though he would occasionally send a specimen to the laboratory before one of his clinics, so that he might mention the findings. To these clinics his colleague, Osler, as a friendly critic, occasionally used to go, but Pepper's was not his method. Osler was particularly prone, in teaching, to draw lessons from his own diagnostic mistakes. Pepper was known on occasion to give a brilliant discourse to the students on Addison's disease, using a patient with ordinary

¹ 'C.' refers to Chicago, where the American Medical Association met the following month. The note suggests that an olive branch had been held out. Musser from the first was an enthusiastic worker in the A. M. A. and became its President.

jaundice for the purpose of the clinic, knowing full well it was a deception. The two men, in fact, were the antipodes of each other, and a community in which Pepper held sway could not possibly hold Osler long. There was never anything, however, in the nature of a misunderstanding between them. As will be seen, Osler had the greatest admiration for many of Pepper's qualities, but it is easily understood why Osler spent so much of his time at work in other hospitals, for the material at the University Hospital at this time was limited and so was the spirit.

His April 'Notes and Comments' wound up with an announcement of the opening of a new building of the 'Orthopedic Hospital',¹ 'probably the most completely equipped special hospital in the country'. At this institution Weir Mitchell was one of the attendants, and becoming aware, in the course of their intimacy, of Osler's great interest in the diseases of the nervous system, he was instrumental in securing an appointment for his friend. This new obligation Osler took up with his usual enthusiasm, and his first papers published from the Hospital² represented a series of lectures which were based on an elaborate statistical investigation of the cases of chorea which had been in the clinic during the preceding decade, 410 in all. Of these, 110 were traced and were submitted to a thorough examination, from which he drew the conclusion that there is no known disease in which endocarditis is so constantly found.³

The afternoon clinics for nervous diseases between the hours of one and four-thirty were divided between Wharton Sinkler, Weir Mitchell, and himself, and he was also associ-

¹ The Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases.

² *Medical News*, Phila., Oct. 15, 1887, li. 437, and 465. *American Journal of the Medical Sciences*, Oct. 1887, xciv. 371.

³ During the course of these studies he became interested in hereditary 'chorea', first described by Dr. George Huntington as occurring in families living on the eastern end of Long Island. A long correspondence followed with Dr. Huntington and Dr. Osborn of Easthampton, where Osler planned to make a visit the summer of this year, but was dissuaded owing to the sensitiveness of the afflicted people in regard to their malady. He speaks of this in an 'Historical Note on Hereditary Chorea' published in 1908 in 'The Huntington Number' of *Neurographs*, a series of neurological studies.

ated at the hospital with Keen, Morton, Goodman, Hunt, Agnew, and Morehouse, between all of whom an unusual degree of professional friendship was established. This highly desirable position was time-consuming, but Osler's calendar was like india-rubber and could be thus stretched without apparent loss of time for other things, and meanwhile a series of important articles representing researches in his more special field continued to appear.¹ One of them, on 'Duodenal Ulcer', deserves mention, for it was written when this lesion, now so commonly recognized and operated upon, was regarded as rare, yet he opens his paper² with the statement that 'the solitary ulcer occurs more frequently in the duodenum than in any other portion of the intestine, and in its etiology and morbid anatomy is almost identical with the gastric ulcer'. Many years elapsed before the truth of this statement came to be fully appreciated. Another paper was on 'Irritable Heart in Civil Life', which he read before the Toronto Medical Society on April 14th, when at home for his Easter holiday—a topic which the recent war has brought into prominence, though it was scarcely heard of in the '80's. Still another was on 'Thrombosis of the Portal Vein'; and on June 2nd, when the Association of American Physicians met for the second time in Washington, an entire evening session was given over to the subject of 'Haemorrhagic Infarction', Welch covering the pathological and experimental side and Osler its clinical aspects.

His April holiday in Toronto must have been brief, for his mother wrote to Mrs. Gwyn: 'Willie's metcor-like visit was pleasant while it lasted, he left at noon yesterday—he is lamentably thin, I do wish he had a nice wife to attend to little home comforts for him—he hopes to be home again on the 9th of July and spend an idle time which will be good for mind and body.' With the exception of a visit to the Shepherds at Como and the Howards at Cacouna,

¹ His bibliography contains an amazing number of titles for the year, eighty in all, if his minor reports and editorials are included. This would suggest superficiality were it not realized that his remarks at the society meetings he regularly attended were invariably reported.

² *Canada Medical and Surgical Journal*, March 1887, xv. 449.



AT THE ORTHOPEDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES

Left to right: J.M. Cattell, Guy Hinsdale, J.P. Willits, J.K. Mitchell,
G.E. de Schweinitz, Miss C. Dalziel, Mrs. Green, Joseph Otto, Miss J. Dalziel.

July and August—‘the idle time’—were passed largely in Toronto getting his chorea lectures ready for publication. One of them was given August 31st before the Canadian Association in Hamilton, and from there he must have gone on to Washington for the International Congress which opened September 5th. If he did so, he was one of very few of the original (superseded) committee who could bring themselves to attend. As he intimates, there were few foreign guests, and those without special distinction. The reception at the White House given by President and Mrs. Cleveland was a ‘crush’, and almost the only redeeming feature of the week was the uniformly good weather. It is well to draw a curtain over the IXth International Medical Congress.

To H. V. Ogden from W. O.

[ca. Sept. 15].

I have had a quiet summer at home—have not seen so much of my relatives for years. My father is pretty shaky. I was very uneasy about him during the hot weather. Mrs. F. and her tribe are well. May has grown a fine girl & the boys are all thriving. I dare say Mrs F. will send you some recent photos. Very sorry to have missed your sisters, I did not go in tho I should have liked very much to see your grandmother. Very few English or Germans at the Congress. Some of the sections were good, others shocking. Glad to hear that you have been busy. I am sure you will capture the town in time. I saw Rogers in Toronto—larger than ever, but unchanged—My love to poor old Cantlie when you see him. I have been working at Chorea. Paper on Heart relations in Am. Jr. October & lectures will appear in early No’s of the News. When are you coming on? Take a holiday about Xmas. I am moving to nicer quarters [1502 Walnut St.] near by. Wish indeed we could get Senn here. His stock is away up in the East. He will get a call before long. It would be a mistake for him to go to Rush.

The new quarters, in which he was to live for little more than a year, were far pleasanter than those at his old address, where as a matter of fact from morning till night he was rarely seen, though there are recollections of occasional Saturday afternoon tea-parties held there for the special children of his special friends with games and cakes—he the youngest of all. The new house, which had been Stillé’s, an old, narrow, three-story residence of the familiar city type, stood on Walnut near the corner of 15th Street, and

in it Osler had the same sort of unadorned office as his previous one, lined with books and strewn with manuscript. He had merely rented the place and had a housekeeper, and though his brother from Toronto, who soon visited him, having an eye for the advance in real-estate values, urged him to purchase the property on a loan, he did not wish to encumber himself with debt. In debt he never was, in spite of the frequent cobwebs in his pockets. But how could pockets be otherwise when their wearer did not wait for change to be put in them? His familiar formula when he bought a paper from a newsboy was: 'Keep the change, sonny; you're raising a large family and I'm not.'

Consistent with his Montreal programme, he had been responsible for getting a group of men to combine in subscribing for foreign publications, chiefly in French and German, which in all probability he utilized more fully than any member of this 'club'. These journals were doubtless the source of many of his editorials, which, on a great variety of subjects, continued to appear in the *Medical News*. One of them mentions the operation on the throat of the German Crown Prince, the progress of whose malady filled the medical journals during the year; and had the outcome of Morell Mackenzie's treatment been more successful and the Emperor Frederick lived—well, there might have been no Great War in 1914. In another place he happened to mention that pestiferous telephones were beginning to be put in doctors' offices, 'for their convenience!' It was an instrument he abhorred. Indeed he was somewhat slow in adopting time-saving devices—not even having a fountain pen in those days before medical secretaries; and no one remembers ever having seen him using a carriage.

With all this incessant literary labour, there is not much to be recorded in the way of relaxation. Stevenson's 'Underwoods' was published this year and a quotation in a letter to Ross gives a clue to his 'bedside' literature at this time. Then the following memorandum, written down on the evening of Dec. 9, may serve to recall his dinner clubs:

I have just walked home with Weir Mitchell from the Biological Club at Wm. Sellers' and he told me on the way of his discovery,

if one may so call it, of the rest treatment. About 12-14 years ago a Mrs S. from Bangor Maine came to consult him at the advice of a mutual friend. She was a bright intelligent woman who had as a girl attended in Boston a school in which Agassiz and his wife were interested and had passed through the four years' curriculum in three years. She then had married and within as short a time as was possible had had four children with the result of a total breakdown, body and mind. Boston and New York physicians were tried for a year; then she went abroad and in London and Paris saw the most eminent consultants and spent months at various spas. But in vain; she returned a confirmed invalid . . . full of whims and fancies. Standing at the foot of her bed, M. felt that every suggestion he had to make as to treatment had been forestalled. Every physician had urged her to take exercise, to keep on her feet, to get about, and she felt herself that this was the best. M. on the inspiration of the moment told her to remain in bed. [There follows a long recital of the successful devices Mitchell resorted to leading to recovery and to the patient's return home.] The improvement persisted; she has since borne several more children and has been the soul of many enterprises in her native town. An incident, post-partum so to speak, was a letter from Mrs. S.'s mother a wealthy New England woman, a speaker at temperance meetings, full of 'isms, &c. She wrote to Dr. M. to say that bodily comfort and ease, health and enjoyment might be dearly bought if at the price of eternal peace. For he had recommended her daughter to take champagne and to have a maid to assist her in her toilette. The former she considered not only unnecessary but hurtful, the latter quite superfluous, as any well-instructed New England husband was quite capable of helping his wife in her toilette. W. O.

1888

Residential Philadelphia is not a place of mighty distances, and most of Osler's chief friends were near at hand; but without a carriage daily visits at the University Hospital, the Infirmary for Nervous Diseases, Blockley, and the late afternoon at the College of Physicians, meant considerable gadding even for one with such an active step as his. It is difficult to understand how he found time to read and where he did all his writing, but he knew how to capture the moment, and his 'deaf adder' training at Weston had brought powers of concentration which were serving him well. Never annoyed by interruptions, ready to give freely of his time to another, he was invariably blithe and gay,

apparently the most care-free of mortals. A contemporary Toronto letter says : ' Dr. Osler was here last week for a consultation on Mrs. X, so we saw him for two days. He is the same old sixpence and is writing papers on the Nervous Diseases of Children and so has children on the brain. He dances along the street singing as he goes—as of old.'

In his service at the Infirmary for Nervous Diseases (Orthopedic Hospital) as elsewhere he gave of his best, and as he gave so he received. With devoted colleagues and surrounded by a group of enthusiastic juniors, despite his short term of office he left such an unforgettable impression on the place that those who survive his time, even down to the humblest charwoman, recall him almost with tears of pleasure. Very much the same feeling existed for him at Blockley, and for his part he retained an unforgetting memory of those who had shared his labours. ' I had the best and kindest of colleagues,' he wrote in after years to J. W. Croskey, one of his juniors : ' Tyson, Bruen, Musser, Hughes and others. With peculiar pleasure too I look back on my association with a group of keen and intelligent Residents, and with Miss Fisher and Miss Horner, in the recently established training-school for nurses ; nor must I forget dear old Owens, on the medical floor, with his Hippocratic gift of prognosis.' One of Osler's characteristics not to be lost sight of was that of getting up complimentary dinners for people on suitable anniversaries, of suggesting a portrait, of subscribing towards a gift for a servant as in the case of this same celebrated Owens, the male ' head nurse ' who for thirty years lived in Blockley and died there. So one may understand brief notes like this to his colleague Musser :

Dear M — Sorry to have overlooked this — I will ask Pepper to move that the Hosp. or the Faculty stand the expense & you will then be re-imbursed — How much shall we need for Owens? Better consult Wilson & Bruen — I wouldnt ask Henry — He does not know him & has not yet been on duty—Yours W. O.

So it was he, rather than some Philadelphian of longer standing, who is found on a committee with James Tyson, J. William White and a student representative of each class,

preparing to celebrate the fiftieth anniversary of D. Hayes Agnew's graduation in medicine—a form of jubilee much more common in continental than American faculties. Agnew, then nearing the end of his indefatigable career, was a surgical colleague not only at Blockley and the Orthopedic Hospital but also held a chair at the University, and well deserved the sort of tribute Osler had seen paid to Frerichs and Rokitansky and others during his sojourn in Europe.

1502 Walnut St., Philadelphia,
4/18/88.

Dear Ogden, You must stay a few days on your way to N.Y. I shall have much more of interest to show you than on your last visit. I am very busy at the cerebral palsies of children, working up the Infirmary material. Shall give three lectures this spring. Gowers has rather got ahead of me in his chapters which are the only ones of importance in the language. Curious that the subject should have been so much neglected. I am writing also on epilepsy, chorea & the spastic palsies for K.¹ Will you not report those cases of Polio-encephalitis? I wish you would send your comm. to one of our journals. It helps you & them. Mrs. F. & chicks all well. I shall spend the summer quietly at home. Let me know when to expect you.

Though Gowers had 'rather got ahead of him'² he persisted in the preparation of the 'three lectures'—there were really five—based on an analysis of 151 cases of cerebral palsy, from his own, Mitchell's, and Sinkler's clinics.³ Their

¹ John M. Keating, his colleague at Blockley, who was editor of an *Encyclopaedia for the Diseases of Children*, in which many participated. Vol. i, 1889, Lippincott.

² In a review (sent to Ross's journal) of Gowers's celebrated text-book which had just appeared, Osler said that the volume had placed 'the author at a comparatively early age among the highest living authorities on all matters relating to the nervous system. No school of medicine in Great Britain has produced such good work in this department as University College: Bastian in the higher psychological relations of mind and brain, Schäfer in cerebral localization, Gowers in his numerous monographs and in this large volume, and Horsley in his brilliant work in the field of brain surgery.'

³ The lectures were delivered during the spring session in the Infirmary for Nervous Diseases; were published in due course in the *Medical News*, and finally gathered the following year into a volume dedicated to S. Weir Mitchell.

final publication a year later, a timely and important one, placed him high in the ranks of American neurologists, already so eminently represented in Philadelphia in the persons of Weir Mitchell and Charles K. Mills. Theirs was a specialty just coming to the fore, with a society to foster it of which Osler soon wrote to Ogden, saying :

. . . Would you not come on in Sept. to the Meeting of the Assoc. of Am. Phy. in Washington. The neurological Soc. will also meet there & others. Why not prepare a short report of a case for the latter and come up for membership. I would get Mills to propose you. They are anxious for new men from all parts of the country. I will send on the reports of the Nurses Directory. Do write up those polio-encephalitis cases. Let me know when you are coming. Try to arrange about the Washington meeting. It will be a very good one.

During the spring, plans were on foot for the first combined meeting in Washington of the several special societies to which this note refers. It was the first 'Congress of American Physicians and Surgeons', over which Billings was to preside. The Surgeon-General's Library at this time was nearing completion, and Osler and Billings had many common tastes and interests which had drawn them together. This was not the only shadow of a coming event which was cast at the time, though Osler was probably too engrossed in his work to notice that it fell upon him. Dr. Welch had just given his remarkable series of Cartwright Lectures on 'Fever', of which Osler's editorial review concludes with the statement that it is gratifying 'to have so able and comprehensive a study from a member of the Johns Hopkins University, an institution the medical department of which may, we trust, give a stimulus to advanced study in medicine and surgery in this country, such as the sister faculties have already given to literature, history and science.'

Still another event of this spring has a bearing on the Johns Hopkins. For one trained as a physician, Osler had always shown not only an unusual grasp of the problems confronting the surgeon but an unusually keen perception of surgical ability, which he was quick to use when occasion demanded. His attention had been particu-

larly drawn to the originality of a recent university graduate whose name was beginning to appear in the journals, and who was at work in a hospital in Kensington :

3/7/88

Dear Musser, Dont fail to be at the Staff meeting on Saturday & vote for Kelly in poor Goodell's place. J. William White & others are running Davis and the staff must show its hand strongly by placing Kelly at the top of the list of candidates. D. can wait, he has only been here 14 mos, & is not to be named with Kelly. Yours W. O.

One version of this episode in Osler's own words¹ is as follows :

The circumstances were these : Goodell had resigned, and there was no end of discussion as to who should take his place. On several occasions I had gone to Kensington to see Kelly operate, and I happened to mention to Pepper that I had never seen anybody do abdominal work with the same skill. He knew of Kelly, but had not, I believe, seen him operate, which he immediately arranged to do. Then one evening at the Biological Club, Horatio Wood and Mitchell were discussing Goodell's successor, and I said that Pepper and I were backing a dark horse—a Kensington colt. With that, Leidy chipped in with a remark that if it was young Howard Kelly, his former prosector, he would back him heartily. This is how I remember the story.

Early in June the eldest of the Francis children, to Osler's great distress, had died after a long illness, and a few days later he sent this note to Ogden, which is characteristic in the way it drops the sad topic for matters relating to the day's work :

Dear O, Yes, Grant had typhoid with secondary meningitis. I did not go up. Graham did not think it necessary as he seemed doomed from the outset, with most profound cerebral symptoms. It is very sad for them, & the poor fellow was doing very well & had such good prospects.

That case will do splendidly for the thesis. I am reporting one of spinal syphilis. We shall have a good meeting. I am busy at my cerebral palsies of children lectures. They will come out in 7, 14 & 21 of July in News. I have collected a large amount of material at our Infirmary & at the Penn. Inst. for feeble-minded children. Shall be so glad to see you in Sept. Send on those encephalitis cases.

¹ Cf. the memorial sketch of William Pepper in 'The Alabama Student and other Essays', 1908.

In the subject of Death in the abstract Osler always had the deepest philosophical interest, and a large section of his library was given over to a diverse selection of works on the subject. Shortly before this time, after first reading Munk's 'Euthanasia', he had written for Ross's journal the following forerunner of his Ingersoll Lecture :

We speak of death as the King of Terrors, yet how rarely does the act of dying appear to be painful, how rarely do we witness AGONY in the last hours. Strict, indeed, is the fell sergeant in his arrest, but few feel the iron grip ; the hard process of nature's law is for most of us mercifully effected, and death, like birth, is ' but a sleep and a forgetting.'

I have been much interested recently in the case of a friend who had entered far into the Valley, and who now, in his convalescence, bitterly contrasts the pains and tortures of suppurating hypodermic punctures with the dream-like, delicious sensations of the profound collapse in which he nearly passed away. Shelley's description, [Mild is the slow necessity of death] is truer in the majority of cases than Newman's marvellous picture in 'The Dream of Gerontius' of the act of dissolution, which, more in accord with popular belief, is described as a 'fierce and restless fight', 'a strange innermost abandonment', and sense of ruin, worse than pain.

Dr. William Munk, the accomplished historian of the Royal College of Physicians of London, has recently written a little work on 'Euthanasia: or Mental Treatment in Aid of an Easy Death'. With much of general and scientific interest, it contains also many valuable suggestions to practitioners and sound advice as to the medical management of the dying. The first chapter, 'On Some of the Phenomena of Dying', is full of interesting testimony on the painlessness of death. He quotes William Hunter's words, almost his last ones: 'If I had strength enough to hold a pen I would write how easy and pleasant a thing it is to die.' Dr. Munk urges the free but judicious administration of opium, not so much for the allaying of pain as for the relief of the feeling of exhaustion and sinking—of indescribable distress and anxiety—referred to the heart and stomach. Hufeland declared that opium 'is not only capable of taking away the pangs of death, but it imparts even courage and energy for dying.'¹

But when death touched him personally, though he suffered deeply he never permitted others to see within, and as in his note to Ogden so even later on in the loss of his

¹ *Canada Medical and Surgical Journal*, March 1888, xvi. 511.

own child, he brushed his sorrow and its emotions aside with some remark which to the unknowing might have seemed almost flippant: 'And if I laugh at any mortal thing, 'tis that I may not weep.' In his account-book of the year there is a brief and unfinished entry which permits one to understand Osler more than had it been completed. It reads: 'June 3, 12.15 a.m. 1888. I have just left the death-bed of Miss Fisher—a sweet blessed character whose influence upon me and upon others has been great in——' This was all, but a few days later he wrote for the *Medical News*, to say:

The public of Philadelphia has sustained a severe loss in the death of Miss Alice Fisher, who nearly four years ago was appointed by the Board of Guardians to take charge of the Training School for Nurses at the Philadelphia Hospital. Only those familiar with the inner history of that institution can appreciate the changes which have been effected under her judicious direction. The good work which she has accomplished has stimulated other hospitals of the city, and training-schools have been established at the Pennsylvania, Episcopal, and University Hospitals. By no means the least important lesson of Miss Fisher's too brief life in this community has been the demonstration of the fact that the profession of nursing affords an ample as well as a most suitable field for women of the highest culture and intelligence.

By the end of June his mother had begun to show impatience for his return: 'We are like school-children counting the days to your holiday—within a week we hope you will be with us.' He seems to have remained in Toronto through July, putting the final touches on his five lectures which appeared in successive numbers of the *Medical News*; and there evidently followed a brief sojourn with his McGill friends at Como and Cacouna, for she wrote on August 7th: 'The house has been cruelly dull all the week. We sadly miss your chirpy voice coming in and out one day after another.' While in Montreal he must have encountered Dr. Egerton Y. Davis, for according to a note in Ross's journal that fabulous person is said to have paid a flying call the same week and to have announced that 'before returning to Pentonville it is his intention to revisit the Great Slave Lake in order to study further the remarkable customs of certain Indian tribes frequenting that region'.

So after a romp with the Francis children at Toronto Island, a visit with his kinsfolk in Dundas, an address on 'The Mortality in Pneumonia' given in Hamilton the last day of the month, before the Canadian Medical Association, September 3rd found him once more in Philadelphia showing hospitality to people on their way to the Washington Congress.

This gathering was to have more of the aspect of an International Congress than the official one which had been so badly staged the year before. Among the distinguished foreign guests were William Ord, Pye-Smith, David Ferrier, Victor Horsley, Sir William MacCormac, Sir Spencer Wells, all of London; Thomas Annandale of Edinburgh, and von Eschmarch of Kiel. It was the first of the notable triennial meetings, subsequently held, of the various special associations, for it was the beginning of the era of specialties and though called a 'Congress of Physicians and Surgeons', it was a conjoint meeting whose object, as Pepper, speaking for the Executive Committee, stated in his introductory remarks, was to bring together the active workers in allied fields, which in no way conflicted with the objects and purposes of the American Medical Association. John S. Billings, as President and the central figure of the congress, gave a notable address on medical museums with special reference to the Army Medical Museum, where a large reception was given in the building recently erected to house not only this collection but the Surgeon-General's Library as well.

But Billings, as the medical adviser of the Johns Hopkins Trustees, had another piece of business on his hands, and during the congress was seen so often in Osler's company¹ that suspicions of his motives were aroused. It is related that Provost Pepper, knowing how intimate Osler was with the Grosses, went in one morning to see S. W. Gross, and standing with his back before the fireplace, said abruptly: 'We are likely to lose Osler, and what in the world shall we

¹ In his 'Life of John Shaw Billings' F. H. Garrison says: 'That Billings should have chosen Osler, a character so utterly different from his cool, impersonal self, is an index of his rare knowledge of men and his capacity to appreciate traits which lay outside his own personality.'

do? Billings is browsing around all the time and I am sure something is up.' To this Gross replied: 'Well, Pepper, if the position at the Johns Hopkins is offered him what have we got in Philadelphia to compete with it?' This story is hardly in accord with Osler's own brief account of the matter, which would make Billings's advances much more abrupt, but inasmuch as Osler makes a mistake in his date, likely enough he may have been similarly inaccurate in other details. His account occurs in an obituary notice of Billings written in 1913:

An important interview I had with him illustrates the man and his methods. Early in the spring of 1889 he came to my rooms, Walnut Street, Philadelphia. We had heard a great deal about the Johns Hopkins Hospital, and knowing that he was virtually in charge, it at once flashed across my mind that he had come in connection with it. Without sitting down, he asked me abruptly: 'Will you take charge of the Medical Department of the Johns Hopkins Hospital?' Without a moment's hesitation I answered: 'Yes.' 'See Welch about the details; we are to open very soon. I am very busy to-day, good morning,' and he was off, having been in my room not more than a couple of minutes.

In his desire to illustrate Billings's abrupt business methods Osler may have used some literary licence, and whether this interview actually occurred in this way, and if so just when it occurred, is not certain. The date may be approximately fixed as just before or just after the action of the Johns Hopkins Trustees appointing Osler Physician-in-Chief to the hospital, which according to the minutes of their meetings was taken on September 25th.¹

The tail-enders of the Congress—the Horsleys, Ferrier, Sir William MacCormac, the von Eschmarchs and others, had lingered in Philadelphia, together with his friends the Shepherds of Montreal, according to the following note in

¹ That there had been other preliminaries is indicated by this note from Dr. Welch: 'I met Osler', he says, 'at a dinner which Séguin gave him at Delmonico's in New York not long after my first return from Europe. He was then in Montreal. I was captivated, and I think that he was my choice for the Hopkins from the time I first became connected with it. In 1888 at a meeting of the Association of American Physicians in Washington I was practically assured that if he got the offer he would come to us. Billings up to that time had Lauder Brunton, and a German professor who had been at the German Hospital in London, in mind for the Chair of Medicine.'

which he makes no reference to the Hopkins appointment, evidently wishing to have his family notified first :

To Mrs. F. J. Shepherd from W. O.

Oct. 1st.

I hope you have recovered from your Phila. dissipations. I enter to-day upon a sober life again. My last friend, Dr. Goltdammer of Berlin went away to-day. You have won the hearts of all my friends here, particularly the Grosses & the Hays. I hope the old man is feeling better for his trip. I wish we had a Congress every year. I do not know when I have enjoyed myself so much. Love to the chicks & kind regards to 'Cooie' & to the girls & Mrs. Molson. By the way tell the latter that I shall wake up at an early date to the sense of my God-paternal duties.

On the following day he writes to Dr. Ogden who has been ill : ' So sorry for your b.t.m. You must take a good rest at Hamilton. I shall send you C. P. of Ch. when out & T's letter when I find it. I have settled at work—after a long spree. Get well soon.' In this cryptic note the ' Cerebral Palsies of Children ' at least can be identified, and though the lectures had already appeared during the summer they were being issued in book form, in an English and American edition.

To William Pepper from W. O.

1502 Walnut St.

Oct. 3rd, 1888.

I have received a definite offer from the J. H. authorities & have determined to accept it. I shall leave you with deep regret. You have been like a good, kind brother. There need be no hurry about any official action, & I only write this so that you may be the first to know of it.

His acceptance must have come as a surprise, for there could have been no intimation of it even among his close friends, to judge from a contemporary letter written by H. P. Bowditch ; ' Osler is going to take a position in the Johns Hopkins University. I don't think this is quite fair of him for we wanted him in Boston you know, but supposed he couldn't be induced to leave Philadelphia.' The appointment created a great stir, and, widely heralded, was accorded universal approbation, for his popularity was already widespread. His mother wrote : ' Thanks for the Baltimore paper. How proud I ought to be of you. I wonder am I, perhaps so—this I do know that my heart is full of

love and thankfulness to Him who has showered so many blessings on my life in the matter of dear precious sons and daughters': and she changes the topic quickly, to say that she is going to give his father the digitalis again: 'Ten drops I think you said before each meal.'

To H. V. Ogden from W. O.

10/12/88.

Dear old Man, I hope you are all well again—sound at bottom. The die is cast. I go to J. H. in May. You must pay me an annual visit & I hope to be able to treat you better than I did here. Do me two favours.

1. Write me what you know—not more than 1 vol. of the F——family, good & bad, a private communication which will not be used in any way against the poor fellow. Have you heard how he is getting on?

2. That sporosperm specimen—Have you the rabbit or pieces? Write me a little note of the same des. of the tumours, & send a bit of the muscle if you can.

So he was to have about six months' leeway, and the transition did not disturb him very much, for his possessions as in 1875 and 1884 were chiefly in his head—and heart—and though a move might be painful it was not laborious. President Gilman, who himself was not particularly given to brevity in his expressions of feeling, must have cogitated over the following note from the new appointee, evidently written in reply to his cordial welcome—but what more was there to say?

To D. C. Gilman from W. O.

Oct. 30th.

Dear Sir, Many thanks for your kind letter. I look forward with the greatest pleasure to my life in Baltimore and I am sure that I shall be very happy and comfortable. Sincerely yours, W^m OSLER.
Thanks for the letter.

Much discussion was aroused in University of Pennsylvania circles in regard to his successor, for his departure would necessitate a shift in existing positions in the Faculty, and an active canvass was started in which his support was naturally sought:

Dear Musser, I have got to go out of town at 1 p.m. & cannot go to 4th St. I shall go down certainly on Friday a.m. & enclose the cheque so that you can pay it in at your bank. So sorry for the neglect but I have not been down town since my return. We could go to the U C after the meeting and have a chat. I have not heard

anything further save that T. will be a vigorous candidate. If a suitable Patholog. is available he will get it, I think, unless Mitchell opposes the transfer. It would rather relieve the tension of a serious & growing difficulty in Pathology but I do not know of anyone—except Prudden—who would fill the chair. I do wish Dock had gotten out 2 or 3 good papers last winter. Wood seems strongly in favour of Guitéras as he was in 1884. Keep mum & bide your time.

But Osler did not permit himself to be greatly distracted by all of this, and there was no slowing-down in his university and literary work. He had, even at this time, developed to a high degree the ability of getting mental relaxation in his literary work by merely shifting his topic, and throughout the year there had been no pause either in his editorials to help out the *News* Board, in his papers on diverse medical topics, or in the 'Notes and Comments' for Ross's journal.

He left for his Christmas holiday in Toronto a week earlier than usual to give by invitation three lectures on 'Cerebral Localization', and there 'received an enthusiastic welcome—an ovation in fact—from the university in which he began his medical studies'. On the day after Christmas he read another paper, on Appendicitis,¹ before the local Medical Society, a much mooted subject since Fitz three years before had baptized the malady. Two days later, on December 28th, as recorded in an article published some years afterwards, he was in Hamilton with his friend Dr. Malloch to see in consultation a young man with a remarkable form of aneurysm. The story is worth telling, for it illustrates how he utilized for his literary purposes everything which was unusual; how alert he was in pursuing what to-day are called 'end results'; and how he followed and in his later papers referred to cases which had stamped themselves on his memory. At a symposium on the subject of Arteriovenous Aneurysm held at the Radcliffe Infirmary at Oxford during the war, thirty years later, he gave the following brief account of this particular case with its subsequent history:²

Case 3.—I reported the case originally in the *Annals of Surgery*, 1893. In 1878 the man, in running down a sloping grass-plot, fell

¹ 'Typhlitis and Appendicitis.' *Canada Lancet*, Jan. 1889, xxi. 193.

² 'Remarks on Arteriovenous Aneurysm.' *Lancet*, Lond., May 8, 1915. He had also reported in full the sequel of this case, as one of arteriovenous

and forced a lead-pencil into the armpit; a gush of blood followed and the arm became black-and-blue to the wrist. The aneurysm involved the axillary vessels. He subsequently lived a very athletic life, rowed in the Argonaut Boat Club, and served in the South African War where he came under Sir G. H. Makins' care. He was invalided in consequence of a sudden pain on the left of the head and neck, and the patient was positive that the tumour had enlarged. He wrote me on October 17th, 1904, saying that he had marched 160 miles in 32 days and fought 16 battles, with the result of increasing the aneurysm very materially, particularly at the base of the neck. He died in May, 1909, 31 years after the accident, of gradual heart-failure.

1889

The January issue of the *Montreal Medical Journal* for this year contained about the last of his Addisonian series of 'Notes and Comments'. It was inspired by an account of an ancient Greek hospital recently excavated at Athens; and from this he was led on to speak of the description in 'Marius the Epicurean' of the hospital in the Etrurian hills where Marius had sought relief and been visited by the great Galen. Next he took up Inge's 'Society in Rome under the Caesars', and then 'The Autocrat', saying:

Literature has often been enriched by those who have deserted medicine for the muses. But to drink deep draughts at Pierian springs unfits, and when the thirst is truly divine should unfit, a man for the worrying rounds of practice. It is shocking to think that had Goldsmith secured the confidence of the old women in Bankside, Southwark, we should probably never have known the Vicar, Olivia, or Tony Lumpkin. Still worse, to think of what we should have lost had Keats passed on from a successful career at Guy's to obtain even a distinguished position as a London Surgeon! Happily, such men soon kick free from the traces in which the average doctor trots to success.

The most conspicuous modern example of success in both fields is offered by the Autocrat of the Breakfast Table, who for many years occupied the Chair of Anatomy at Harvard, and who as a young man made permanent contributions to practical medicine. In his last book, 'One Hundred Days in Europe', he mentions having sat next to Mr. Lawson Tait at dinner and he suggests the question, 'Which would give most satisfaction to a thoroughly humane and unselfish being of cultivated intelligence and lively sense—to have

aneurysm of the axillary vessels of thirty years' duration, in the *Lancet*, Lond., 1913, ii. 1248.

written all the plays which Shakespeare has left for an inheritance to mankind, or to have snatched from the jaws of death scores of suffering women and restored them to a sound and comfortable existence?' I know of no man who could so well make answer to this question as the Autocrat himself. Would he rather go down to posterity as the man who, in this country at least, first roused the profession to a sense of the perils of puerperal fever as an infectious disease—and who thereby has probably saved more lives than Lawson Tait—and whose essay on the subject—*pace* shades of Meigs and Hodge—is a classic in American literature, or would he choose to be remembered as the author of 'The Pearly Nautilus' and 'The Last Leaf'?

'Pearly' was of course a slip for 'Chambered', but the thought led him to write to the 'Autocrat', from whom he received this reply:

From O. W. Holmes to W. O.

Boston, Jan. 21, 1889.

My dear Sir,—I have rarely been more pleased than by your allusions to an old paper of mine. There was a time certainly in which I would have said that the best page of my record was that in which I had fought my battle for the poor poisoned women. I am reminded of that Essay from time to time, but it was published in a periodical which died after one year's life and therefore escaped the wider notice it would have found if printed in the *American Journal of the Medical Sciences*. A lecturer at one of the great London Hospitals referred to it the other day and coupled it with some fine phrases about myself which made me blush, either with modesty or vanity, I forget which.

I think I will not answer the question you put me. I think oftenest of the 'Chambered Nautilus', which is a favourite poem of mine, though I wrote it myself. The Essay only comes up at long intervals, the poem repeats itself in my memory and is very often spoken of by my correspondents in terms of more than ordinary praise. I had a savage pleasure, I confess, in handling these two Professors—learned men both of them, skilful experts, but babies as it seemed to me in their capacity of reasoning and arguing. But in writing the poem I was filled with a better feeling, the highest state of mental exaltation and the most crystalline clairvoyance, as it seemed to me, that had ever been granted to me. I mean that lucid vision of one's thought and all forms of expression which will be at once precise and musical which is the poet's special gift, however large or small in amount or value. There is some selfish pleasure to be had out of the poem, perhaps a nobler satisfaction from the life-saving labour. . . .

Osler's interest in such a matter at this juncture would make it appear that his coming transplantation was looked

upon with composure, though it must inevitably have greatly increased the calls upon his time; for he not only had to participate in the local canvass for his successor, but it was necessary also for him to secure a desirable personnel for the medical clinic to be organized in Baltimore. In spite of all this, such an admission as he makes in the following note was most unusual:

[Jan. 10, 1889].

Dear Musser, Sorry I could not join you last eve, but I was dead beat, having had a most tiring afternoon, & with a—for me unusual thing—splitting headache. So I went to bed at 9.30. I shall certainly do what you suggest. I have with Ps [Pepper's] consent appointed Fred Packard. I have called 3 times on P. since my return & have missed him. I shall try to see him soon & talk about you.

Then too, as his frequent notes to D. C. Gilman show, there were many calls to attend conferences in Baltimore which he somehow managed to work in during his week-ends. One of these notes towards the end of January reads: 'I will join you at the 5th ave. Hotel about noon on Sunday.' There had been a deal of discussion in regard to the future housekeeping arrangements of the new hospital, and, as the time for the opening drew near, Mr. Gilman had decided on a course of which the following account (somewhat inaccurate so far as dates are concerned) was written by Osler many years after:

The opening of the Johns Hopkins Hospital in 1889 marked a new departure in medical education in the United States. It was not the hospital itself, as there were many larger and just as good; it was not the men appointed, as there were others quite as well qualified; it was the organization. For the first time in an English-speaking country a hospital was organized in units, each one in charge of a head or chief. The day after my appointment I had a telegram from Dr. Gilman, President of the university, who had been asked to open the hospital, to meet him at the Fifth Avenue Hotel, New York. He said to Dr. Welch and me: 'I have asked you to come here as the manager is an old friend of mine, and we will spend a couple of days; there is no difference really between a hospital and a hotel.' We saw everything arranged in departments, with responsible heads, and over all a director. 'This', he said, 'is really the hospital, and we shall model ours upon it. The clinical unit of a hospital is the exact counterpart of one of the sub-divisions of any great hotel or department-store.'

Other things, too, at this complicated period must have served to interrupt his usual routine. Requests for consultations, which up to this time had been few and far between, began to pour in so that he must have been hard pressed to meet his fixed obligations as a conscientious teacher and writer. A number of addresses had been promised for April and May, and his valedictory to the Pennsylvania students was ahead of him—enough to stagger any one less capable than he of getting out of each day the best there was in it.¹

Early in March he had offered the position, as his house physician or assistant in Baltimore, to Dr. H. A. Lafleur of Montreal, a McGill graduate of two years' standing who had been acting as *locum tenens* for Wyatt Johnston in Osler's former post as Pathologist to the Montreal General. And this important point settled, he shortly after writes to Ogden :

I go to B. in May. We are getting the Hosp in order. If you know of any A.A.I. copper-bottomed young graduate in the West who could serve for a year as Interne I should like one. He must come with your entire approbation. I shall take Lafleur from Montreal as my Chef de Clinique in charge of the Clin. Lab. & general supervisor of the ward work. We shall need 2-5 resident graduates—ultimately 10-20 & they are to be selected from the country at large.

In the midst of all this he was burdened with anxiety over what proved in each case to be a fatal illness from pneumonia of two of his devoted friends. Late in March word had come that Palmer Howard had been taken ill, and Osler left almost immediately for Montreal and was with him until his death, which occurred on Tuesday morning of March 28th. He had remained conscious to the end, and the sad duty devolved upon Osler of taking in turn each of the children by the hand to their father's bedside for his last messages. His affection for Howard had been truly filial,

¹ He was also busy with the chapter on 'Congenital Affections of the Heart' for Keating's monumental Encyclopaedia of the Diseases of Children—an article which remains a classic on the subject, and must have required an immense amount of reading even though he was able to draw largely on his Montreal post-mortem material for many of his illustrations of cardiac anomalies.

and to see him thus overtaken when in the full tide of his professional and collegiate life was a heavy blow. Howard in turn had loved Osler as a son, and the three younger children, who from now on came after a fashion to be regarded as Osler's wards, had always looked upon him from their earliest years as a combination of elder brother, playmate, and father confessor.

Heavy at heart, he had little time to dwell upon his loss, for he was called promptly to Ottawa for an important consultation; and from there, stopping only for a few hours in Toronto—'on Friday morning to leave a bit of sunshine', as his mother wrote—he appeared in New York on April 3rd for his promised address before the Alumni Association of the Bellevue Hospital. His subject was 'Phagocytosis', and he gave a detailed presentation of the theory elaborated by Elic Metchnikoff, who had recently joined the staff of the Pasteur Institute in Paris. The address shows an astonishing degree of familiarity with all the recent literature, mostly in German, pertaining to a complicated subject, which concerns the scavenger-like function of the wandering white blood-corpuscles in picking up and engulfing foreign materials; but it was a topic to which Osler had made significant contributions himself. From the time he first observed the manner in which 'the pond amoebae play among the desmids, diatoms and algae' to his later studies of the fate of the coal-dust particles inhaled into the lungs of miners, he had pursued the subject along his own lines; and he was particularly interested in determining the rôle of the phagocytes during the course of his investigations of malaria. One would have supposed that such a disease as this would offer the best possible means of studying the process in the actual blood current, but it proved otherwise, and Osler's conclusion drawn from his personal observations was that 'while phagocytosis is a widespread and important physiological process throughout the animal kingdom, and while it undoubtedly plays a most important part in many pathological conditions, the question of an active destructive warfare waged by the body cells against the micro-organisms of disease must still be considered an open one.'¹

¹ *New York Medical Journal*, 1889, xlix. 393-400.

Howard's death was not the only blow. Even before his return to Philadelphia news had come of the acute illness of Samuel W. Gross, his friend and colleague of the 'News' Board, who begged to see him. He was found critically ill, and on April 16th, only five years after the death of his distinguished father, he in turn died at his house in Walnut Street where Osler had passed many happy hours. During the remainder of April he must have been at his wits' end. Yet a number of papers were finished and it may be taken for granted that he in no wise neglected his students and his clinics. For the first time in years, owing to an engagement to give an address in Baltimore, he had to forgo his Easter visit in Toronto, and on April 24th his mother writes :

We are all more than disappointed to find that you cannot come this Easter tide, but will not be selfish for I'm sure just at this time you must be almost dazed and a few days after you have once changed quarters will be more of a rest for your dear old brains, (I won't say bones) though I fancy they are wearied now and then. A postcard and note came for you last week but so far nothing in the shape of a parcel has come except the coat from Ottawa. If it should come in time to forward the trousers they will be sent direct but supposing there is delay send a card to say whether they shall be forwarded to Philadelphia or Baltimore as I suppose you will be there after May 1st. In all your turmoil I do trust you will keep well and find things fit in without much worry—the loss of those two friends has I know been a hard trial for you to bear for your heart is not of stone and you know why all trials are sent—just to make us more like unto our Master and to fit us for the Home which He has gone to prepare for His people. You will be glad to hear that Father keeps fairly well. . . .

She had reason to be concerned for his 'dear old brains', though they seemed to be working smoothly enough for he had managed to prepare an address which was delivered April 23rd in Baltimore at the annual meeting of the state medical association—a body which bears the honoured name of 'The Medical and Chirurgical Faculty of the State of Maryland'. There were at this time five medical schools in Baltimore, in addition to the new one which was in prospect, all but one or two being schools of a very low order. Osler had fearlessly chosen as his subject 'The Licence to

Practise',¹ and then and there took up the cudgels which he never ceased wielding for higher standards of medical preparation. In this he was a true disciple of Palmer Howard, for it was the rôle his preceptor had long played in Canada. He handled his subject squarely and without gloves or apology, though it was one which closely touched certain vested rights of the Medical and Chirurgical Faculty. Only a few years before, a bill advocating a State Board of Examiners had been rejected, and the schools of medicine, largely managed in the interests of the professors, were private enterprises whose diplomas carried a qualification for practice after attendance at two sessions without further tests, a condition resulting in a state of things which in Osler's words 'made the American "system" of medical education a byword amongst the nations':

. . . It makes one's blood boil to think that there are sent out year by year scores of men, called doctors, who have never attended a case of labour, and who are utterly ignorant of the ordinary everyday diseases which they may be called upon to treat; men who may never have seen the inside of a hospital ward and who would not know Scarpa's space from the sole of the foot. Yet, gentlemen, this is the disgraceful condition which some school-men have the audacity to ask you to perpetuate; to continue to entrust interests so sacred to hands so unworthy. Is it to be wondered, considering this shocking laxity, that there is a widespread distrust in the public of professional education, and that quacks, charlatans and impostors possess the land?

The difficulties, as he pointed out, which confronted legislative bodies, lay in the fact that they could not support class legislation which would debar from patients the homocopaths and eclectics whose curricula differed from that of the regular schools only in the matter of therapeutics.

We cannot, however, escape from the important fact that in the eyes of the law we all stand equal, and if we wish legislation for the protection of the public we have got to ask for it together, not singly. I know that this is gall and wormwood to many—at the bitterness of it the gorge rises; but it is a question which has to be met fairly and squarely. When we think of the nine or ten subjects which we have in common, we may surely, in the interests of the public, bury animosities, and agree to differ on the question of Therapeutics.

¹ *Maryland Medical Journal*, 1889, xxi. 61.

But it was not all indignation, for he gives a very clear outline of the course which must be pursued, and his prophecy—‘It needs not the vision of a son of Beor to advertise that within ten years in scarcely a State in the Union will the degree carry with it the privilege of registration’—was fulfilled. Thus a new, a vigorous, and convincing voice with a real message was raised before the assembled profession of Maryland, with none of the usual amenities and platitudes which might have been expected from a newcomer in their midst, and above all from one who was not even a naturalized citizen. There must have been wagging of heads, but there was no mistaking the fact that a new leader, whose words carried weight, had addressed them.

This incident, so characteristic of Osler’s fearlessness of criticism when he felt strongly on any question, is given prominence for another reason. It introduces him in a new rôle, other than that of student and scholar, namely, as the ardent protagonist for the advancement and welfare of the profession as a whole. And the Marylanders whom he had thus addressed came shortly to regard him not only as their accepted leader, but at the same time with no less devotion for his personal qualities than was universally felt for him in Philadelphia.

To President Gilman from W. O. Wednesday [May 1, 1889].

I have been so worried & driven during the past month that I have not had time to go down. I shall be down on Saturday by the 10.20 train & will drive direct to your office.

P.S. I enclose a list—I hope not too long—of personal friends to whom I would like invitations to be sent.

On this same morning of May 1st he gave his valedictory address to the Pennsylvania students. He was brief, and chose to consider but two of the score of elements which might contribute to their future success or be of help in days of failure. The first of these was imperturbability, the second equanimity. Of this second quality he said:

Let me recall to your minds an incident of that best of men and wisest of rulers, Antoninus Pius, who as he lay dying in his home at Lorium in Etruria, summed up the philosophy of life in the watchword, *Aequanimitas*. As for him, about to pass *flammanitia moenia mundi* (the flaming ramparts of the world), so for you, fresh from

Clotho's spindle, a calm equanimity is the desirable attitude. How difficult to attain, yet how necessary, in success as in failure !

Then in addressing the Faculty, after referring to the recent loss of Edward Bruen ; to the loss sustained by their sister college (Jefferson) in the death of S. W. Gross ; and of his own personal loss in Palmer Howard, he closed by saying :

While preaching to you a doctrine of equanimity, I am, myself, a castaway. Recking not my own rede, I illustrate the inconsistency which so readily besets us. One might have thought that in the premier school of America, in the *Civitas Hippocratica*, with associations so dear to a lover of his profession, with colleagues so distinguished, and with students so considerate, one might have thought, I say, that the Hercules Pillars of a man's ambition had been reached. But it has not been so ordained, and to-day I sever my connection with this University. More than once, gentlemen, in a life rich in the priceless blessings of friends, I have been placed in positions in which no words could express the feelings of my heart, and so it is with me now. The keenest sentiments of gratitude well up from my innermost being at the thought of the kindness and goodness which have followed me at every step during the past five years. A stranger—I cannot say an alien—among you, I have been made to feel at home—more you could not have done. Could I say more ?

On this same Saturday evening he was subjected to a complimentary dinner. Pepper presided and there were a number of special out-of-town guests, among them Ross from Montreal, Billings from Washington, Draper from New York, and H. P. Bowditch from Boston ; and Bowditch wrote to his family : ‘ Osler's dinner was quite a festival. It is extraordinary what a hold he has on the profession in Philadelphia. He is one of the most popular men I ever knew.’ Though he was by no means to lose touch with his many Philadelphia friends of the past five years' making, any more than his first transfer had put him out of touch with his Montreal friends, it was nevertheless an abrupt and clearly marked break in the period of his American life. There was to be only one more, after another fifteen years had elapsed, and when that time came one of his associates and neighbours, James Wilson, recalled this five years' sojourn in the Quaker City in the following words :

What did he do for us ? He made himself agreeable to the older men, and demonstrated to the younger men how medicine should

be learned and taught. He broadened our conceptions in regard to the inductive method in medicine. Facts, facts, and always the facts. The facts of the ward, of the microscope, of the laboratory, of the post-mortem room. He made it clear to some of the younger men who are now reaping the reward of their work that it is not necessary for every man to be a practitioner in the ordinary sense, but that long years of hospital and laboratory work constitute a better equipment for the teacher and the consultant. He inspired his students with enthusiasm for letters and taught them the rare rewards that come of searching the medical scriptures. He showed that in the democracy of our profession any man is free by a principle of self-election to attain the most coveted post of distinction and honour. He pointed out not only to us, but to all men, how fine and noble the profession of medicine is for those in it who are fine and noble.

He ornamented his discourse with quaint allusions to Holy Writ and the Pilgrim's Progress, but did not in those days say much about Montaigne and the *Religio Medici*, and rarely alluded to Plato or Marcus Aurelius. Nevertheless, he helped some of us to do a little thinking. At length, after the fashion of the nautilus, he builded a more stately mansion and left us. We would have fain kept him; but that could not be.¹

¹ J. C. Wilson: 'Remarks at Farewell Dinner to Dr. Osler, May 2, 1905.' Privately printed.

CHAPTER XIII

1889-90

THE JOHNS HOPKINS HOSPITAL. ORGANIZATION OF A CLINIC

JOHNS HOPKINS, a Baltimore merchant, a bachelor and a Quaker of economical habits, had amassed during and after the Civil War what for the time seemed a princely fortune. Influenced, it is said, by a conversation with his former fellow townsman, the London banker and philanthropist George Peabody, he came to believe that there were two things that were sure to endure—'a university, for there will always be youth to train; and a hospital, for there will always be suffering to relieve.' Consequently, on his death in 1873 he left in the hands of his chosen trustees the sum of seven million dollars to be equally divided between the two institutions which were to perpetuate his name. The two boards of trustees, which were largely interlocking, in the unhurried manner said to have characterized all their actions proceeded to choose a leader, and, with rare wisdom, two years later decided upon Daniel Coit Gilman, then President of the University of California. To the sagacity of this man probably more than to any other single influence, the institution owes its foundation upon 'the idea of a university', to use Cardinal Newman's phrase, as distinct from that of a college.

For twelve years—since 1877—the hospital had been building. Despite an endowment of three and a half million, the hospital Trustees, with a degree of foresight unusual in a lay board unfamiliar with the problems involved, had bided their time and utilized only the accrued income of the large fund at their disposal in constructing the plant. They had been fortunate in the selection of John S. Billings as their medical adviser, and the general plans of the hospital which were the product of his brain, had been erected in the so-called 'pavilion' style, an outgrowth of the system of separated wards with which Billings had been so familiar in the army hospitals during the later years of the Civil

War. The grounds were extensive, comprising four city blocks on the crest of a hill—a superb site which had been selected by Mr. Hopkins himself, on the eastern edge of the city of his day. The university, ‘across-town’, had no such setting—indeed for the casual visitor was hard to find—for Mr. Gilman believed in spending more money on men and their tools than on buildings, and the first group of six professors he had assembled—Gildersleeve, Rowland, Sylvester, Remsen, Morris, and, in biology, Huxley’s pupil Newell Martin—fully justified his judgement, for they quickly placed the Johns Hopkins, as a university in fact rather than in name, far in the lead of all other institutions in the land which were endeavouring to establish higher courses for graduates. It was looked upon in educational circles as more or less of an experiment, though one in which all confessedly were deeply interested. From the outset the place had been well advertised—almost too well on its baptismal day in 1876 when Huxley delivered the inaugural discourse without accessories of music, prayer or benediction—a perfectly consistent Quaker procedure. ‘Vain it was to mention the unquestioned orthodoxy of the Trustees and the ecclesiastical ties of those who had been selected to be the professors. Huxley was bad enough: Huxley without a prayer was intolerable.’¹

Great changes however may occur in thirteen years, and though there was still considerable local hostility towards ‘the Hopkins’, it was beginning to give way under the unquestioned excellence of the university programme and the rapidly growing fame of the institution which made it in the early years a Mecca for the most brilliant of the young

¹ Cf. Daniel Coit Gilman: ‘The Launching of a University.’ N.Y., Dodd, Mead & Co., 1906. To D. C. Gilman, the hospital as well as the university owed much. Andrew Carnegie said that Gilman’s special gift was in drawing all men after him by pleasing all and offending none, ‘doing the absolutely necessary ungentle things in a gentle way.’ And Osler in his ‘Fixed Period’ address said his association with him had been an education and a revelation, adding: ‘I had never before been brought into close contact with a man who loved difficulties just for the pleasure of making them disappear. But I am not going to speak of these happy days lest it should forestall the story I have written of the inner history of the first period of the hospital’—a history, he it said, as yet unpublished.

scholars of the land who were looking for inspiration and post-collegiate instruction.

During all this time Billings had been writing and lecturing on the subject of the hospital and the proposed medical school, and meanwhile all the leaders of medicine of two continents had been consulted by Gilman. In 1883 the first step had been taken towards a provisional medical faculty consisting of Ira Remsen in chemistry, Newell Martin in biology, and William H. Welch, who had been called from New York to take a Chair of Pathology—the first time such a post had been established on a full university basis.¹

On Welch's return from abroad in 1886 something more nearly resembling an institute of experimental medicine than anything the country had seen before was soon in operation in the first building erected on the hospital grounds. Here, from 1886 to 1889, courses in pathology for graduates were given, and around Welch there gathered a group of enthusiastic co-workers, including Franklin P. Mall, the first appointed Fellow, Sternberg, Councilman, Halsted, Abbott, Bolton, Flexner, Booker, and Walter Reed, some of whom were to remain as permanent appointees. As a culmination of all this, the formal opening of the hospital, coinciding as it did with Osler's advent, was widely heralded. Not only the medical but the lay press of the month contained elaborate accounts of the hospital, its plans, specifications, and purposes. No plant certainly was ever dedicated under more favourable circumstances,

¹ 'Matthew Hay [writes Dr. Welch] was appointed to the Chair of Pharmacology in 1884 at the same time that I was elected to the Chair of Pathology. We corresponded about plans for the school, but never met. I see that Hay records this in "Who's Who". When I was appointed it was intended to proceed with the selection of other members of the medical faculty, so as to be ready to open the school at the same time that the hospital was opened, which it was thought then would be in two or three years. Then came the financial difficulties due to failure of the B. & O. to pay dividends on the stock, and I found myself somewhat stranded as regards medical teaching and human autopsies. If we had been able to proceed, say in 1885 or 1886, with the selection of other members of the Faculty we should probably have missed Mall, Abel, Halsted, Kelly and, above all, Osler, and our fate might have been very different. Martin became incapacitated only just as we were starting the medical school in 1893.'

nor with a more widespread interest in what the future might have in store for it.

On Monday, May 6th, the new hospital buildings were thrown open for public inspection, and on the following day came the formal opening which this time—thanks to the outcry thirteen years before—began with prayer and ended with music.

. . . It was a brilliant day, and notabilities, medical and otherwise, from Baltimore and the principal medical schools of America were grouped under the vast dome of the administration building to witness the inauguration of what was confidently believed to be the last word in hospital construction and management for the scientific study and treatment of disease. There was a feeling of elation—one might even say of exaltation—that the structure which had taken twenty years to evolve, absorbing the energies and thought of so many able minds, had at last become a *fait accompli*. And to none more than to Dr. Osler was this a red-letter day. To blaze a perfectly new road, untrammelled by tradition, vested interests, or medical 'deadwood'—best of all, backed by a board of management imbued with a fundamental and abiding respect for scientific opinion and commanding an ample budget—what more could the heart of man desire? The days that followed were filled with the many details of organization. There were record-forms and charts of various sorts to be devised, instruments of precision and appliances for diagnosis to be purchased, diet lists to be drawn up and, not least, a clinical laboratory to be furnished and equipped—the latter a temporary affair, as those who had planned the magnificent pile of buildings had omitted to make provision for this essential feature of a medical clinic. With all these matters Dr. Osler busied himself with his usual cheerful and untiring industry, and the thought that was uppermost was to have the best that could be obtained.¹

The responsibility of organizing the clinic rested primarily on Osler's shoulders and, from what has gone before, the course he would pursue could have been foretold. From the first, he planned to make much of bedside clinical teaching, with chief emphasis on practical instruction to small groups of students; and though this course could not be put into effect until the medical school should be opened, there was meanwhile plenty to do in preparation. Borrowing

¹ H. A. Lafleur: 'Early Days at the Johns Hopkins Hospital with Dr. Osler.' *Canadian Medical Association Journal*, May 1920, Memorial Number, p. 42.

from his knowledge of the German clinics, a hierarchy of long-term hospital residents was established to take the place of the usual brief period of internship, which had been and still continues to be the custom in most hospitals. He had made a wise choice in Laflaur as his Resident Physician, under whom J. A. Scott and Harry Toulmin, recent Philadelphia graduates, were to be the first Assistant Residents; and around this nucleus there gathered an ever-increasing group of devoted satellites. One of them, H. M. Thomas, a Baltimorean whose father was one of the Quaker members of the original Board of Trustees, has given an account¹ of those thrilling days, when the staff was a closely united body energized by Osler's example, engaging personality, and generosity, for 'he saw to it that the younger men got the whole credit of the work when often it should have gone to himself'.

Five venturesome patients visited the dispensary the morning its doors were thrown open, and a few days later, on May 15th to be exact, the first case, one of aortic aneurysm, was admitted to the single medical ward then ready for occupancy; and from this small beginning things must have moved rapidly, for a fortnight later he scribbled on a card to Musser: 'Spital booming—very busy.'² On the 1st of June a public announcement had been made of the provisional staff organization, consisting of Osler as Physician-in-Chief with his three assistants, while Welch as Pathologist-in-Chief was represented by W. T. Councilman and Alexander Abbott in residence. As the ambulatory clinic for out-patients was to be made a feature of the hospital, Halsted, temporarily appointed Acting Surgeon, was put in charge with F. J. Brockway as the first Resident Surgeon, and J. M. T. Finney and G. S. Clarke as his assistants. All these first-comers, with Mr. Gilman as

¹ H. M. Thomas: 'Some Memories of the development of the Medical School, and of Osler's Advent.' *Johns Hopkins Hospital Bulletin*, 1919, xxx. 188.

² He was not too busy, however, later in the month to attend the annual meeting, in Newport, of the American Medical Association, where he reported a case of 'Word Blindness with Hemianopsia', published later in the *American Journal of the Medical Sciences* for Mar. 1891, ci. 219.

Acting Director, lived together in the hospital during these first few months while the wards one after another were being opened.

To H. V. Ogden from W. O. Johns Hopkins Hospital, Baltimore,
June 26th, 1889.

Dear Ogden, I send my Cerebral Palsies of Kids, & a val. address. Health Boards will save the profession in this country if well organized. Wish you could come down here—bed always at your disposal. We are in full swing—50 patients in wards & averaging 60–80 in Dispensaries daily. I am largely responsible for Kelly who is the highest gynepod & one of the best operators in the country. I know him intimately. He has a bitter enemy in J— P— & I have no doubt some of his friends have been talking. His record is remarkable. His third successful Caesarian—mothers & children—was performed 6 weeks ago. I wish we could have had Senn here. That Washington escapade & those letters killed him in the East. I shall be in Toronto for Aug. 1st. Was there last week—all well. Yours ever, W. O.

Howard A. Kelly, with his former assistant and future Resident Hunter Robb, joined the group later in the summer; and finally, early in August Henry M. Hurd, previously head of the State Hospital for the Insane at Pontiac, Michigan, who had been chosen as the future Superintendent, came to relieve Mr. Gilman from his self-imposed task. Except for the suite of rooms set apart for Dr. Hurd and his family, for he was the only married member of the household, the most desirable rooms in the administration building were given over to the juniors, several of whom rejoiced in a separate study and bedroom—such quarters, indeed, as hospital internes had never before known.

So this original group living intimately together, the chiefs and their juniors, became a closely knit body of friends who knew how to work as well as to play together. One may be sure that much lively banter passed between these active-minded people and that their individual foibles were not spared. The new Superintendent ceased to preface his remarks by: 'I once knew a man in Pontiac, &c.' after he had reprimanded the staff one morning for putting an out-of-town visitor, unable safely to negotiate



THE JOHNS HOPKINS HOSPITAL



THE FIRST GROUP OF HOPKINS INTERNES WITH 'THE CHIEF'

Circa April 1890

Back row: A.A. Ghiskey, J.M.T. Finney, A.C. Abbott, Hunter Robb, G.S. Clarke,
W.H. Baltzell,

Second row: H. Toulmin, W. Osler, J.A. Scott, H.A. Lalleur, W.H. Farr.

Below: F.J. Brockway, D.M. Reese.

his way across town, in bed the night before in one of the wards; for he was told 'it was the man from Pontiac'. It was a toss-up as to who would have the upper hand in some practical joke played on one or the other and carried out with solemn face. Osler one Saturday night had been to see Richard Mansfield in 'The Parisian Romance'—a play in which Mansfield dies of a well-simulated stroke of apoplexy. The pathologists of the hospital naturally enough were eager not to lose any opportunity for post-mortem examinations; and on Osler's return, seeing Councilman reading in the common-room, he announced that there had been a fatality—a cerebral haemorrhage—and an immediate autopsy was requested. This hint was promptly taken by Councilman and Abbott, who repaired to the pathological laboratory and made their preparations; but as nothing happened, after a long wait they telephoned the ward and learned the true facts. Osler had long since gone to bed and taken the precaution of locking his door. In some reminiscences of those days, one of the victims of this prank¹ recalls that—

. . . He [Osler] was then not quite forty and looked younger, a well-knit but rather spare figure, of about the average height, a rather long moustache, the position of the ends of which seemed to vary with his mood; hair even then a little spare, a clear but rather sallow complexion, a broad forehead, good eyes and lively expression. I think that any stranger with good knowledge of men would have thought him from appearance interesting and been attracted by him. His clothes were always simple and worn well, and he fancied cravats of rather striking colour. At first, with the exception of Welch and Mall, we all lived in the hospital, our rooms in the main building were capacious, comfortably furnished, and the outlook over the city and harbour was fine. No one of the small group of men who participated in the hospital life at this early period can forget its fascination. . . . We breakfasted together, then each sought his particular duties, to meet again at luncheon. The luncheon hour, at which most of those working at the hospital gathered, was the most delightful of the day. Osler, Welch, Halsted, Mall, LaSleur, and with the usual visiting stranger, sat at a table in the end of the dining-room. The conversation was always lively and interesting: everyone sought to bring something to the feast.

¹ W. T. Councilman: 'Osler in the Early Days, &c.' *Boston Medical and Surgical Journal*, April 1920.

There was talk about work ; jokes, and laughter. A favourite game in which Osler rather excelled—his early experience with Egerton Y. Davis and the Caughnawauga Indians having given him previous practice—was to relate the impossible and to lead up to this so skilfully that the line between fact and fiction was obscured. It was very well for us who knew the game, but occasionally it would be played when the serious visitor was present and he often carried away with him striking information of new facts in medical science. The exchanges between Osler and Halsted were always a delight, and we all sought to get something on the other. I remember once that I had gone to Philadelphia to read a paper on a subject in which we were all interested, but unfortunately I had mistaken the date by a week, at that time not being accustomed to think of evils long in advance. I was naturally somewhat fearful of the fact being ascertained, and the first thing, the next day, Osler asked me about the paper, how it had been accepted, what was the discussion, etc. I rather welcomed the opportunity to get the matter over with and spoke of the enthusiastic reception accorded the paper and gave at some length the discussion upon it. ‘What did Wilson say?’ asked Osler, and I thought it well to put Wilson in opposition and gave as well as I could his opposing argument. ‘Yes,’ said Osler, ‘Jim Wilson spent last night with me and said he immensely enjoyed your paper but he could not quite agree with you.’

Two things must not be lost sight of in regard to the chiefs-of-service. Their youth in the first place ; for Osler, not quite 40, was the senior in years, with Welch a year younger, Halsted 37, Hurd 36, and Kelly only 31. In the second place, these young men, as had been true of those originally gathered to make the nucleus of the university, had been imported into a conservative community which had its own fine medical traditions, and it is but natural that there must have been some heart-burnings that there was no representative of the Baltimore profession on the new Faculty. On the part of the newcomers, it was a situation requiring a combination of patience, of tact, of good-fellowship, of kindly feeling and, at the same time, evidence of indubitable professional superiority.

Though the nurses’ training-school had not as yet been formally opened nor its directress chosen, a number of capable women had been attached from time to time, one of whom, an Englishwoman, graduate of the Florence Nightingale school, a Miss Louisa Parsons, of whose sad

death years later the circumstances will be told, was temporarily put in charge. During most of the summer Osler remained at his post, for though Baltimore in midsummer is not an ideal place for sustained work, the hospital is so fortunately situated that life there is comfortable enough.

To President Gilman from W. O.

The Johns Hopkins Hospital,
July 19th, 1889.

Dear Mr. Gilman,—I dare say you will be glad to have a line or two from me giving an account of my stewardship. The machine works smoothly, thanks to your manipulation. Thanks, also to your arrangements, there has been no trouble so far. The number of patients keeps about the same—forty-seven to-day. The nurses continue satisfactory. I think we have been very fortunate in our selection. I hope that you are enjoying your well earned holiday, and I will be glad if you will give my regards to Mrs. Gilman—our lady visitor. Should I get anywhere near Mt. Desert this summer, I shall assuredly come to Northeast Harbour.

He must have secured a secretary by this time, an unwonted luxury, for this is the first of his recovered letters which was typewritten, all of his previous correspondence and papers having been written out in longhand. He got away by the end of August for a visit in Toronto, and from there in company with his favourite nephew,¹ W. W. Francis, instead of proceeding to Banff, where the Canadian Medical Association was to meet, he for good and sufficient reasons went to pay a visit to a doctor-friend in charge of the leper colony at Tracadie, on the Gulf of St. Lawrence in the very north-eastern corner of the Province of New Brunswick. New Brunswick is not so large but that some Philadelphia friends who were spending the summer on the Island of Grand Manan, off the southwest corner of the Province, joined forces with them as told below :

Visit to the Leper Colony at Tracadie.

W. O. took me along—I was only 11. When we started from Toronto he intended to leave me with some friends in Montreal and to pick me up on his return a week later. But I was too polite to refuse the cheese at dinner—it was very high—and I would not stay in a house where such food was possible. So on I went with him

¹ Osler was 'uncle' by courtesy to all the Francis children, who in reality were his first-cousins-once-removed.

to Portland, Maine, and from there to Eastport where we waited impatiently for a boat from Grand Manan which was bringing two mysterious friends to join us. They were 'the Widow Gross' (the first time I saw her) and Miss Woolley; and the four of us made the rest of the trip together, via St. John, Bathurst, and a funny little railway thence to Caraquet on the Baie de Chaleurs, where we were all put up by a very charming family, with some girls who made a lot of me. Next day, the rest of them drove 30 miles to Tracadie and inspected the colony of 18 lepers. I was left behind with 'cold feet', the result of heat, lobsters and seeing some pictures of the lepers. When we got back to Bathurst and the main line, the train was late, hot and crowded, and the only accommodation left for W. O. and me and an enormously fat R. C. bishop was the smoking-room of the Pullman. The bishop offered to climb up to the upper berth, but we both looked at his girth, and he joined us in the laugh. W. O. and I shared the upper, and the bishop snored horribly. We dropped our companions the next day at Cacouna. Such is my childhood recollection. Boiled down, I fear there is nothing in it but the fact of the visit and that Mrs. Gross accompanied us.

It was a very brief holiday, for September 10th finds him in Washington for a meeting of the Association of Physicians; and a few days later he wrote to Ogden to say that 'the hospital flourishes apace' and that he is tempted to stay on for another year rather than to take up his abode in town. However, he shortly after took up his residence at 209 West Monument Street, where the eldest daughter of his brother Featherston, whom he persisted in introducing as 'Mrs. O.', came to keep house for him. The arrangement gave him the first opportunity he had ever had of entertaining in his own home, and it came to be the exception for him ever to sit at table without having transient visitors or members of the hospital staff as informal guests. 'I am sure', his mother writes, 'you will find the dear Georgie all you could wish, only be careful in having so many young M. D.'s about and treating them so kindly too. It is only a very special specimen of its kind that is to set his affections on your very extra niece.'

On October 9th the Nurses' Home was formally opened, and the Training School for which ample provision had been made was inaugurated with due ceremonies. Isabel A. Hampton, a remarkably capable woman, a Canadian

and a graduate of Bellevue Hospital in New York, had been brought from the Illinois Training School in Chicago, of which she was then Superintendent, and under her leadership as Principal the school rapidly came to hold high rank, for it was the first time such a school had been recognized from the outset as an essential part of the hospital foundation. In this same month, the Monday-evening societies which came to play such an important part in the life and work of the hospital staff were organized. The first and third Mondays of each month were to be given over to the presentation of interesting cases, to the reading of papers, and to the discussion of problems in process of solution. The first meeting was held on October 22nd, with Welch presiding and Hunter Robb acting as secretary; and before this group of enthusiastic young people eager to advance knowledge and to control opinions by experimental tests, hardly a subject could be mentioned at one of these gatherings that did not lead to further work in view of the free and suggestive exchange of ideas. In the history of medicine there has never been anything quite like it: there was no need to drum up an audience for these meetings, and it is recalled that Reginald H. Fitz, who at about this time went down from Boston to learn something of the spirit of this new place which already was being so much talked about, likened the life to that of a monastery, with the unusual feature that the monks did not appear to bother their minds about the future.

It has been seen that both in Montreal and Philadelphia Osler had organized a foreign-periodical club; and so here what was called 'The Journal Club' was started, with its first meeting in the library of the hospital on Thursday afternoon of October 29th, when the current literature was reviewed. The recorded purpose of the 'club' was 'to enable all members of the staff to keep fully informed as to what is being accomplished by workers in every branch of medical science with the least expenditure of time'; and many of these reports and book-reviews subsequently found their way into Hays's journal or elsewhere, so that others could get them second hand, though on the printed page the stimulating discussions which took

place on the Thursday afternoons was missing. Such things as this must have occurred many times before in other places, but never under more favourable auspices nor with a more enthusiastic group, undistracted by any outside calls upon their time and eager to justify their connexion with a new institution untrammelled by tradition, whose present and future reputation lay entirely in their hands.

D. C. Gilman was a wise propagandist and realized the importance of getting the publications of the workers stamped with the seal of the university,¹ and consequently the hospital trustees were encouraged to provide suitable mediums of publication for the medical group—not only an annual volume on the lines of the famous Reports which had emanated from some of the London hospitals, but a monthly journal as well, to contain the reports of meetings, discussions, and the shorter occasional papers. Thus in December there appeared the first number of the *Johns Hopkins Hospital Bulletin*, which was to play such an important part in bringing the activities of the hospital group before the medical world. The first number contained the preliminary account of Welch's studies on hog cholera, and a further statement from Osler on the value of Laveran's organism in the diagnosis of malaria, a subject in which his juniors had become deeply engrossed, and which in time led to Thayer's comprehensive monograph on the subject. It also contained an announcement of the courses which were to be offered to graduates, for, disappointed as all must have been in the postponement of plans to open a medical school, teaching was nevertheless regarded as an essential stimulus, even for those engaged actively in research.

At the Medical Society meeting of December 16th John S. Billings brought over from the Surgeon-General's Library some forty items—manuscripts, incunabula, and

¹ The *American Journal of Mathematics*, under Simon Newcomb; the *American Chemical Journal*, under Remsen; the *American Journal of Philology*, under Gildersleeve; *Studies from the Biological Laboratory*, under Martin and Brooks; and H. B. Adams's *Studies in Historical and Political Science* had already been launched under the aegis of the university.

rare medical publications—from among the treasures in the growing collection in Washington which his foresight had made possible. An account of the meeting, with a list of the books, was published in the *Bulletin*, and thus interest was started in the bibliography and history of the profession, which has since spread widely and for which Billings primarily, and Osler and Welch in turn, were so largely responsible. An Historical Club was soon established, one Monday evening in each month being given over to its purposes; and unless he were ill or away from home Osler for the fifteen years to follow was unfailing in his attendance at these Monday-evening gatherings, which he regarded as educational agencies of great importance to the hospital and school.

There was a gathering in Toronto late in December to celebrate the opening of the new biological laboratory, erected largely through the energies of Professor Ramsay Wright, on which occasion a number of distinguished men gave addresses, among them Welch, Charles S. Minot of Harvard, Vaughan of Ann Arbor, and 'our own Osler', as the local papers had it. Welch chose as his topic a discussion of 'Pathology in its Relation to General Biology'; and on the evening of the 20th a special meeting of the local Pathological Society was staged, in which all the guests participated. Accustomed to have Osler play the major rôle in Canada as a pathologist, it must have caused some comment among the profession in Toronto to see how completely he had relinquished to his colleague the leadership in a subject which had for so long been the source of his keenest interest.¹ This was inevitable, for Welch's appointment represented the first recognition of pathology as a subject entitled to stand alongside of biology

¹ Before the Johns Hopkins Medical Society, March 17, 1890, Welch exhibited a series of gross and microscopic specimens of entozoa observed in the domestic animals in Baltimore, and stated that 'the interest in animal parasites has been overshadowed of late years by the study of the pathogenic bacteria, but nevertheless the entozoans are of great interest and importance and deserve our careful attention'. As pointed out, Osler had begun his studies of entozoa many years before and to judge from his note-books he had gone into the subject even more thoroughly than Welch. Unfortunately there is no report of any discussion following Welch's paper.

and the other sciences on the university calendar. Nevertheless, for Osler to have given up without question the privilege of conducting the post-mortem studies upon fatal cases from his own service is merely an example of the generosity of spirit which pervaded the Hopkins group in those days. But his long apprenticeship in pathology had been by no means wasted: it was unquestionably an ideal preparation for a clinician and gave him the rare ability to interpret his patients' symptoms in terms of the pictures which his long hours at the autopsy-table had indelibly stamped on his mind. So, in the text-book he finally came to write, his pathological descriptions, drawn from his own experience, were regarded as the best part of his treatise and could have been written by no other clinician of the day, unless possibly by Fitz, who had had a similar training. In his address given on this very occasion Welch stated that 'pathology must constitute the scientific basis of practical medicine'.

1890

There was a widespread epidemic of influenza at the time, almost though not quite so serious as the epidemic of thirty years later during the Great War; and his mother writes in a Christmas letter on his return from Toronto: 'I hope the cold you had did not lay you up on the sick list. This epidemic is everywhere and keeps the poor M. D.'s very busy, or what is worse lays some of them low; every house has its tale to tell.' Whether he escaped is not told, but he probably did not, for whenever there were 'colds' about he was almost certain to be victimized and it became his custom to surrender immediately, to remain in bed for a day or two and to saturate himself with literature in lieu of drugs. As the hospital affairs were flourishing, as there was no immediate prospect of starting the medical school, and inasmuch as the staff was so organized that any one, even 'the Chief', might drop out without affecting the routine work, he made plans to spend a few months in Europe, for he had not been abroad since his Goulstonian Lectures were given five years before. Of these plans he writes to Mr. Gilman, who, needing a well deserved rest after fifteen years at his post, had taken his family first to

the Mediterranean for the winter months and then to England, where honorary degrees were bestowed upon him at Oxford and Cambridge :

To Daniel C. Gilman from W. O.

209 W. Monument Street,
March 6th

Dear Mr. Gilman, I feel rather conscience-stricken that I have not reported progress to the Ex-Director. Everything works smoothly on the lines laid down by you but a few details will give you an idea of our present conditions. We have now had nearly 1,000 in-patients & over 11,000 out-patients! To-day the ward population is 130 & the income from private patients over \$360. The new Director is excellent in all respects & gets on well with everyone. I do not know that he has quite our appreciation of the Training School tho he & Miss Hampton are on the best of terms. Halsted is doing remarkable work in Surgery & I feel that his appointment to the University & the Hospital would be quite safe. Kelly's department is now in full swing. We made a great hit in Sister Rachel [Miss Bonner] who is a bond of peace, but I tell her that she has sadly degenerated, & has so far departed from the faith once delivered to Fox as to frequent playhouses. Miss Hampton has fulfilled Mrs Gilman's prognosis, and she has been most successful in getting probationers of a high class; but unfortunately she selects them altogether for their good looks & the House staff is by this time in a sad state. The chief is, I fear hopeless—you remember Keats—'They could not in the self-same mansion dwell without some stir of heart &c,' but it is *not* the 'gentle Isabel'. Miss Parsons as I dare say you have heard has gone to the Maryland General.

The Bulletin you will have already seen & the first two numbers of the Reports. Both start with firm support but the latter may drag a little as it is so hard to get men to write. I leave April 26th by Etruria & shall be in London about May 6th. My address will be Brown Bros. Do let me know of your whereabouts as I am most anxious to talk over the Medical School & if possible arrange to go to Cambridge with you. I shall spend the great part of May & all of June in a systematic inspection of six or eight of the leading German & French clinics & return to London about July 1st. We follow your progress with great interest & all rejoice that you are having such a good holiday.

The first fasciculus of Volume II of the Hospital Reports for 1890, to which he refers, comprised seven papers from Osler's clinic, and though such publications necessarily have a small circulation, they had been written—and the second volume indeed was completed—long before the papers were all in hand for Volume I, 'as it is hard to get

men to write'. They were on a variety of clinical topics, perhaps the most important being those by Osler himself on tuberculous peritonitis and on the intermittent fever associated with gall-stones, for which conditions, even at this early day, he advocated more frequent operative interference.

At one of the January meetings of the hospital society, Osler had presented a case of *Filaria sanguinis hominis*, a parasitic disease of the tropics and sub-tropics, practically unknown in northern latitudes, an example of which, however, had been sent from Charleston to the hospital for study. Though he had written an editorial on the subject for the *Medical News* in 1886, inspired by John Guit  ras's discovery of the parasite, he had probably never before seen a case to recognize it, and the incident, trivial enough in itself, is only mentioned to point out again the intense interest which diseases produced by parasites always roused in him. It was an interest easily traced, for it almost certainly began with his observation of the trichinae during his student days in Toronto, and in natural sequence led to his collection of the entozoa, to his early papers on cestode and echinococcal infections, and subsequently in Philadelphia to his malarial studies. So one may imagine his delight when on March 22nd of this year he discovered amoebae in the material secured from an abscess of the liver of a patient with chronic dysentery whom he had seen in consultation with Dr. Friedenwald of Baltimore, and on whom Dr. Tiffany had operated. Not even Leidy 'with one more rhizopod to discover' could have been more elated. In one of his case note-books which has been preserved, he has drawn numerous pictures of the organism, especially of one amoeba which on March 24th was watched for many hours and of which there is a succession of sketches showing its changes in contour. Two days later he wrote enthusiastically to Musser :

When are you coming down? MacDonald of Montreal will be here towards the end of the week. Could you not come & take dinner with us & stay the night—always a room ready. We have been much excited over Kartulis' amoebae which we have found in a liver abscess from a case of dysentery—a Dr. from Panama. They

are most extraordinary & striking creatures & take one's breath away at first to see these big amoebae—10-20 times the size of a leucocyte—crawling about in the pus. The movements are very active & in one case kept up for 10 hours. I get a fresh stock of pus from the drainage tube every day so if you could run down some eve. we could look for the creatures in the morning. Koch & Kartulis found them constantly in the stools and bases of the ulcers in Egyptian dysentery & the latter in the liver abscesses. Keep an eye on your Blockley dysenteries as it would be most interesting to find similar bodies in our dysenteries. I am off on April 26th by Etruria. Very busy—I go north for Easter—few days.

An account of this observation was promptly written up and appeared in an early number of the *Bulletin*.¹ It was the first confirmation in English-speaking countries of observations made by an Athenian, Kartulis, who had been stimulated to make studies of dysentery in Greece following upon the discovery by Koch during his sojourn in Egypt in 1883 with the Cholera Commission, that amoebae were occasionally to be found in the intestines of persons dead of dysentery. Up to this time a good deal of doubt had been cast upon the conclusions of Kartulis, for many had regarded the amoebae as secondary invaders, so that the discovery of the parasites in the liver abscess Osler regarded as the first important observation made on the medical service. Late in 1913, when preparing for the address, already much quoted from, in which he gave a summary of his life as a clinical teacher,² he wrote certain sections not included in the article when printed. One of them refers to this discovery and its sequel, as follows :

Familiar with the various forms of amoebae, the opportunity appeared to be an important one for the study of a disease which was widely prevalent. We very soon had other opportunities, and within a few weeks Dr. Lafleur demonstrated their presence in a local case. In the same year the amoebae were demonstrated by Dr. Charles Simon in a case in the wards, in which the abscess had perforated the lung. The disease was found to be common, and Dr. Councilman in the Pathological Department, and Dr. Lafleur—then first Assistant in the Medical Clinique—issued in Vol. II of the *Johns Hopkins Hospital Reports* for 1890 the monograph on the subject which still remains the most exhaustive contribution in

¹ *Johns Hopkins Hospital Bulletin*, 1890, i, 53.

² 'The Medical Clinic.' *British Medical Journal*, Jan. 3, 1914.

English, and at once convinced both pathologists and clinicians of the specific nature of this type of the disease. Many subsequent reports are to be found scattered through the *Bulletins*, one of the most interesting of which was the disclosure by Dr. Flexner of the presence of the amoebæ in an abscess of the jaw. The hepato-pulmonary abscess—of which we had a great many cases—was made the subject of a careful study by Dr. Fitcher.

During all this time he had a sufficient reason for running over to Philadelphia when opportunity permitted, even had he not been called there frequently to participate in some function or other. One such occasion took him, a few days before his sailing, to the College of Physicians, where he gave an address¹ in connexion with the presentation to the College of the portrait of Weir Mitchell, its recent President, than whom, as Osler said, no member of the profession in his generation had more pleasurably 'warmed both hands before the fire of life'.

Reference has repeatedly been made to Osler's habit of note-taking, and a number of his pocket commonplace-books filled with abundant jottings on topics of all sorts, written in pencil and now for the most part illegible, are in existence. It was a habit that he strongly recommended to his students as one of the three essentials in their education :

Given the sacred hunger and proper preliminary training, the student-practitioner requires at least three things with which to stimulate and maintain his education, a note-book, a library, and a quinquennial brain-dusting. I wish I had time to speak of the value of note-taking. You can do nothing as a student in practice without it. Carry a small note-book which will fit into your waistcoat pocket, and never ask a new patient a question without note-book and pencil in hand. After the examination of a pneumonia case two minutes will suffice to record the essentials in the daily progress. Routine and system, when once made a habit, facilitate work, and the busier you are the more time you will have to make observations. . . . Begin early to make a three-fold category—clear cases, doubtful cases, mistakes. And learn to play the game fair, no self-deception, no shrinking from the truth; mercy and consideration for the other man, but none for yourself, upon whom you have to keep an incessant watch. You remember Lincoln's famous *mot* about the impossibility of fooling all of the people all of the time. It does

¹ Cf. the *Johns Hopkins Hospital Bulletin*, June 1890, i. 64.

not hold good for the individual, who can fool himself to his heart's content all of the time. If necessary, be cruel ; use the knife and the cautery to cure the intumescence and moral necrosis which you will feel in the posterior parietal region, in Gall and Spurzheim's centre of self-esteem, where you will find a sore spot after you have made a mistake in diagnosis. It is only by getting your cases grouped in this way that you can make any real progress in your post-collegiate education ; only in this way can you gain wisdom with experience. It is a common error to think that the more a doctor sees the greater his experience and the more he knows. No one ever drew a more skilful distinction than Cowper in his oft-quoted lines, which I am never tired of repeating to a medical audience :

Knowledge and wisdom, far from being one,
Have oft-times no connexion. Knowledge dwells
In heads replete with thoughts of other men ;
Wisdom in minds attentive to their own.
Knowledge is proud that he has learned so much ;
Wisdom is humble that he knows no more.¹

During the course of the quinquennial brain-dusting which he took this summer, one of these student note-books was kept. It is filled with the usual miscellany, though for the most part with notes such as any careful observer might have made of clinics which he had attended. A typical continental *Studienreise* was taken during which he enjoyed the companionship of Ramsay Wright, whose purpose was to study museum methods, in view of the recent destruction by fire of the University of Toronto Museum. They decided on Freiburg as a starting-point, reached there May 17th, saw the new surgical theatre, visited Weismann and also Wiedersheim the comparative anatomist, spent a pleasant evening with Ziegler, Kahlden and others at a *Kneipe* ; and on the next day, a Sunday, they went to Titi-See, climbed the Feldberg and dined on the top, without, alas, the promised view of the Swiss mountains. They went on to Basel and Berne, where Osler was interested in the number of women students attending the classes of Langhans and Sahli. One was discovered to be immersed in a Tauchnitz novel during the lecture, and Osler notes that he did not see one who looked likely to

¹ Osler : 'The Student Life.' No. XX in 'Aequanimitas and other Addresses'.

become the Trotula of the twentieth century. Then Zurich and Munich, where, being Whitsuntide, the university laboratories were deserted; and as every one seemed to be going to Oberammergau for the Passion Play they followed suit and were fortunate to discover a bedroom of sorts in the Wittelsbacher Hof, since tickets for the play—which Osler described as ‘frightfully realistic’—were allotted to the beds in the village. From Munich they went to Erlangen, principally to visit Strümpell and Zenker; and Osler notes: ‘The university is Erlangen—practically there is nothing else in the little Bavarian town, which forcibly illustrates the great truth that *men* make a seat of learning, and if given proper facilities will attract students.’ Then Wurzburg, where a visit to Kölliker impressed him so much that he notes: ‘The type of a senior Professor which might well be more common,—the intellectual digestion usually gets feeble after the *crise de quarante ans* and new methods are assimilated with difficulty. A man however who has brought out within a month or so the first part of a new edition of his General Embryology 25 years after the last edition cannot be called old, although he may have reached the Psalmist’s limit. Nothing is more inspiring than to see a veteran in the van.’ *En route* to Heidelberg they had some hours in Frankfurt with Edinger, and with Weigert, whom Osler had known in Leipzig and who was found busy with a new stain for neuroglia. Heidelberg was described as ‘too alluring to spend much time in hospitals or laboratories’, and yielding to the seduction of the place they spent some days in long walks over the hills, their evenings *zum Perkeo*, &c. Professor Wright recalls that—

W. O. felt the romance of every nook and corner of the place. On one of these outings, Sunday June 1st, a gypsy caravan passed us, and our attention was arrested by the beauty of the young girl who sat on the end of the last van. Later in the day we encountered the caravan in Neckargemünd; the men had been taken in charge by the police for entering the town without permission, the women were protesting noisily, and our sympathies were awakened and our pockets lightened to the extent of a few marks by the tears of the young beauty—Osler left unfinished a most poetical version of this incident, beginning: ‘Upon what trifles depend events of the

utmost importance to the individual.' He evidently intended his 'philologically-inclined young cousin Egerton Y. Davis Jr., Instructor in English in the University of X' to join the gypsy band with the object of acquiring Romany!

From Heidelberg they proceeded to Strasburg, where they saw Schwalbe the anatomist; but visits were also paid to Naunyn's wards and laboratory, as well as to those of von Recklinghausen, Hoppe-Seyler, Schmiedeberg, and Goltz. All this and much more Osler told in a series of 'Letters to my House Physicians' sent in turn to 'L' [Lafleur], 'T' [Toulmin], 'R' [Reese], 'S' [Simon] and 'H' [Hoch], and which were published serially in the New York and also in the Montreal medical journals of that year. These long letters contain delightful pen-pictures of the men and places that were visited, and many of the things he picked out as worthy of comment find their reflection in some of the teaching methods which he subsequently adopted. The last of the letters, written from Strasburg and sent to August Hoch, ends with the following paragraph:

Now, as you are in part a Teuton, it may interest you to know the general impression one gets of the professional work over here. I should say that the characteristic which stands out in bold relief in German scientific life is the paramount importance of knowledge for its own sake. To know certain things thoroughly and to contribute to an increase in our knowledge of them seems to satisfy the ambition of many of the best minds. The presence in every medical centre of a class of men devoted to scientific work gives a totally different aspect to professional aspirations. While with us—and in England—the young man may start with an ardent desire to devote his life to science, he is soon dragged into the mill of practice, and at forty years of age the 'guinea stamp' is on all his work. His aspirations and his early years of sacrifice have done him good, but we are the losers and we miss sadly the leaven which such a class would bring into our professional life. We need men like Joseph Leidy and the late John C. Dalton, who, with us yet not of us, can look at problems apart from practice and pecuniary considerations. I have said much in my letters of splendid laboratories and costly institutes, but to stand agape before the magnificent structures which adorn so many university towns of Germany and to wonder how many millions of marks they cost and how they ever could be paid for, is the sort of admiration which Caliban yielded to Prospero. Men will pay dear for what they prize dearly, and the true homage

must be given to the spirit which makes this vast expenditure a necessity. To that *Geist* the entire world to-day stands debtor, as over every department of practical knowledge has it silently brooded, often unrecognized, sometimes when recognized not thanked. The universities of Germany are her chief glory, and the greatest boon she can give to us in the New World is to return our young men infected with the spirit of earnestness and with the love of thoroughness which characterizes the work done in them.

The last three weeks in June were spent in Paris, and the note-book gives picturesque accounts of their doings there, which began with a visit to Laveran at the Salpêtrière. They saw Déjerine, Debove, Bouchard, Charcot, Hayem, Straus, and Luys; and Déjerine's lectures he particularly recommended. Hypnotism was very much to the fore at this time, and there is a long account of a clinic before a crowded amphitheatre—described as 'a regular circus'—given by Luys at the Charité. They were living meanwhile near the Pasteur Institute and often attended Pasteur's hydrophobia inoculations which were held in the early afternoons.¹ They met Metchnikoff, Richet, and Cornil and attended some of their lectures, as well as those of other celebrities like Renan, who was lecturing on the Book of Daniel, and Quatrefages, who gave an active and well-studied attack on Darwinism such as might have been expected in the '60's. So the days passed, and in early July after one of the worst possible Channel crossings they parted in England, to meet again later on in Berlin. While in London he saw, of course, all his London friends and spent a promised week-end with the Schäfers, then living at Croxley Green, Hertfordshire. The following incidents, among many others, remain stamped on Sir Edward's memory:

A good many years ago—about 1890—when I was in London, I happened to be walking with Osler in the West End during one of his visits from the other side, and as we were passing a bootmaker's he said: 'Come along in here a moment, I want to see an old friend.' The proprietor, an elderly gentleman, was standing with

¹ In his introduction to the English edition (Constable & Co.) of the 'Life of Pasteur' which Osler wrote at the request of Mr. Phipps in 1911, he refers to these demonstrations by 'the Great Master', though, as often in mentioning dates, he was casual and got them incorrect.