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Osler stamp, 1949

18 Feb. 2011

2

The Immortal Osler

Reflections on the Life of Sir William Osler (1849-1919)

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Sir William Osler
1849-1919

With the exception of Hippocrates, more articles have been written about Osler than about any other physician – over 1600 by 1986.

There are numerous societies & clubs devoted to his memory :

- the American Osler Society
- the London Osler Society
- the Japan Osler Society
- local medical school ones

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Osler is honored as America's most famous physician.

Here "America" means both Canada & the US, for he was born & educated in the former.

His academic career was spent at the following:

1870-1884 at McGill U. (Montreal General Hosp.)
1884-1889 at the Univ. Penn. (Philadelphia)
1889-1905 at the Johns Hopkins Medical School (Baltimore)
1905-1919 at Oxford as the Regius Professor of Medicine

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Osler wrote c. 730 articles and books, the most celebrated of which was his text on medicine.

He published widely on various clinical problems – notably on pneumonias, tuberculosis, typhoid, syphilis, & endocarditis.

He carried out original research on platelets & phagocytosis.

But his most enduring fame came from his humanistic writings, his many moralistic aphorisms, and his biographical works.

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Bond Head, Tecumseh Township

Wm. Osler (1849-1919) was the youngest son of six and next to the last of nine children born to Featherstone & Ellen Osler -- he from Cornwall, she from near London.


Featherstone had been a young naval officer for 10 yrs. but despaired of advancement in the Royal Navy. He then studied at Cambridge for 3 yrs. and was recruited by the Upper Canada Clergy Society to start a new parish in a small rural village, **Bond Head, Tecumseh Township**, which was 12 miles north of Toronto. He was ordained a priest in the Church of England in 1837 while passing through Montreal on the way to Bond Head. See above ✦.

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a



b



a. the parsonage at **Tecumseh**

b. Six of the younger Osler children, c. 1864 ... left to right:
William, Frank, Edmund, Edward, Mrs. Ellen Osler, Nellie, & Chattie.

Three of William Osler's brothers had outstanding careers in Canada:

- Featherston (the oldest) became Justice of the Court of Appeals for Ontario,
- Britton Barth (2nd son) became Queen's Council, &
- Edmund Boyd (3rd son) became a very wealthy financier and was knighted.


8

Young William Osler was educated in a local grammar school and "**had the sack**" occasionally for boyish pranks.

Later, while at a boarding school he was "jailed for three days" for more pranks:

- putting a flock of geese in a class room,
- moving all class chairs to the attic,
- locking a disliked schoolmarm in her room and then blocking the chimney outlet of its stove.

He entered Trinity College, Toronto at age 18.



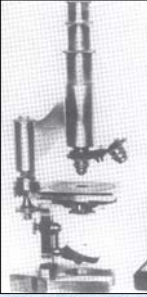
Age 18, 1867

9

While a student in **Toronto**, Osler was influenced by two mentors: the Rev. Wm. Arthur Johnson and Prof. James Bovell of Trinity College.

They introduced Osler to microscopy, with which he identified 110 species of **diatoms** in ponds near his home. He published his first papers on this subject in two journals in 1869 & 1870.

A pre-1870 microscope of the type likely used by young Osler




10

Osler entered the Toronto medical school in 1868 but in 1870 transferred to **McGill** in **Montreal** because of its greater access to clinical material.

There also he came under the influence of Dr. Robert Palmer Howard, Professor of Medicine. In his library Osler had access to the rich medical literature there.

During his two years of medical school Osler applied his expertise in microscopy to post mortem material and published the first of his many case reports with autopsy findings.

He graduated in 1872.




McGill Medical School, Montreal, 1871


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Osler spent 15 months studying blood platelets in the newly established Physiology & Histology Laboratory of Burdon Sanderson, University College, **London**. Osler is credited with recognizing the presence of **platelets in clot formation**. But, as he admitted in his 1874 paper, "we know nothing of the origin or destiny of these corpuscles." Platelets had not yet been named such.

Prof. Sanderson, c. 1850s

A clot formed in rat serum incubated for 2 hrs. revealed a platelet-fibrin mass with free RBCs "about it to show the relative sizes." Osler; *Monthly Microscopical J.*, 1874.






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In 1874 Osler returned to **McGill**, where he

- became lecturer in the Institutes of Medicine (encompassing physiology, pathology, hygiene, & therapeutics)
- introduced the first course in clinical microscopy in Canada,
- established McGill's first physiology lab,
- directed the smallpox ward of the Montreal General Hospital ... also contracting a mild case of variola in spite of prior vaccinations.

In 1878 Osler became attending physician at the **Montreal General Hospital**, where he initiated bedside teaching on the wards.

During the decade of 1874-1884 he performed nearly 1000 autopsies and published 316 papers. He was still a bachelor.




Osler, age 28, 1877

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Osler is commonly said **not** to have made any significant contributions to basic biology, but this assessment neglects Osler's recognition of **phagocytosis** five years before the phenomenon was first described by Metchnikoff in 1880.



Osler's 1875 paper "On the Pathology of Miner's Lung" had two parts: the 1st described autopsy findings in the lungs of 4 cases of miner's lungs. The 2nd part involved **experiments** to produce comparable histological findings in kittens injected with India ink into their axillae & lungs.

The protective role of phagocytosis was finally impressed upon medical minds by **Metchnikoff** via his many papers on the subject, 1880-90.



Osler anticipated this role but did not pursue the phenomenon further. He **wrote in 1875**, "[The] fixation of the carbon granules in cellular bodies [in the lungs of the kittens] must be regarded as an effort [by the body] to render harmless what might otherwise be very irritating substances."

14


The "Osler slide," prepared from Osler's 1875 case of miner's lung.

Photomicrograph of slide showing ingestion of coal dust particles by alveolar cells = phagocytosis.


Courtesy of Prof. Rick Fraser, Dept. of Pathology, McGill University

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In 1884 Osler became Professor of Medicine at the **Univ. of Pennsylvania**, the oldest and then the most renowned medical school in the US. Here he focused on autopsies, clinical studies, bedside teaching, and raising the standards of and support for medical school education. He became a member of numerous national medical organizations.




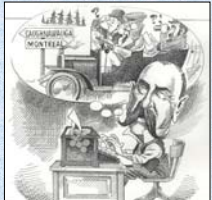
Old Blockley, Phil. Gen. Hosp.



During this Philadelphia period of 5 years Osler published 378 serious scientific papers but also penned some medical spoofs under the pseudonym of **Egerton Y. Davis**.

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Osler submitted for publication the papers listed below under the authorship of **Egerton Y. Davis**, "late US Army Surgeon" of Caughnawauga:

- Vaginismus (*penis captivus*)
- Peyronie's disease (*Strabisme du pénis*)
- Extra-uterine changed to intra-uterine pregnancy by electricity
- Professional note among the Indian tribes about Great Slave Lake, N.W. T.

Une couche difficile chez les Apaches.

17




In 1886 Osler heard the remarkable story from Manitoba of a pregnant woman who had inadvertently delivered her baby while seated on an open-hole toilet in a slow moving train. The baby landed on the recently sanded road bed and was quickly found, alive with only minor injuries.

Months later Osler interviewed the family and then submitted this true case to the Canadian Medical and Surgical Journal as "**The Baby on the Track**."

The editor initially rejected his article and hinted that the "baby was born not in the water-closet of the train, but in the mind of W.O with **E.Y.D.** as midwife." But it was true.

Osler's comic alter ego was **Egerton Y. Davis**, whose middle initial stood for "**Yorrick**" (sic). Shakespeare's Yorick (sic) was a "fellow of infinite jest," as Hamlet remarked upon finding the skull of the old court jester. Yorick "hath borne me on his back a thousand times." (Act V)


18




The Johns Hopkins Hospital, Baltimore, c. 1894

In the 1870s, a wealthy **Baltimore** merchant, **Johns Hopkins**, left his considerable fortune (\$7M) to establish a university, a hospital, and a medical school in his name. In 1889 Osler was hired as the first Professor of Medicine. He began by establishing the interne-resident program now used by all American university-associated hospitals. The first Hopkins medical students did not enroll until 1893. During their 3rd & 4th years Osler introduced "the natural method of teaching."

19



on the wards




Sat. morning rounds for 3rd & 4th yr. students

One of Osler's great forte was **medical education**, which was the subject of many of his notable **aphorisms**:

- "Medicine is learned by the bedside, not in the classroom."
- "To study the phenomenon of diseases without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."
- "To cover the vast field of medicine in four years is an impossible task."
- "Undoubtedly, the student tries to learn too much, and we teachers try to teach him [& her] too much – neither, perhaps, with great success."

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... at work on his text of medicine, 1891-1892

But before the first medical class had entered (1893), Osler had spent 17 months writing his celebrated text: **The Principles and Practice of Medicine**. Weekly, wagon loads of books & journals moved between the Surgeon General's Library in DC & Osler's temporary study under the Hopkins dome. Since its publication in 1892, there have been 16 editions, 84 printings, and over 500,000 copies produced. Unlike other synoptic medical texts of that era, Osler's was filled with historical and literary allusions, anecdotes, & colorful expressions.

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Apart from its general success, **Osler's book** had an unexpected impact on American medicine.


During his summer vacation in 1897, **F.T. Gates**, an advisor to **John D. Rockefeller**, read the entire text. To his surprise he learned that "medicine had ... with few exceptions no cures" – especially for the infectious diseases. He dictated a memorandum to Mr. Rockefeller regarding the condition of medicine in the US & the world, as described in Osler's text. Gates knew about the newly founded Koch Institute in Berlin and about Pasteur's discoveries, which "had saved France a sum in excess of the entire cost of the Franco-Prussian War." These considerations took root in the minds of Mr. Rockefeller & his son.



As a result, the Rockefeller fortune was used to establish the **Rockefeller Institute & Rockefeller Foundation for Medical Research**, the **Johns Hopkins School of Hygiene & Public Health**, and to fund a campaign to eradicate **hookworm** in the South.

22


During his Philadelphia period (1884-1889), Osler became friends with a medical school colleague, S.W. Gross, and his wife, **Grace**. Dr. Gross died unexpectedly in 1887 at age 52, leaving his childless widow, then age 32. Osler had a "striking physical resemblance" to Dr. Gross, including the drooping handlebar mustache. But Osler was much younger, being only 38 years old in 1887. A discreet courtship apparently began, for during the summer of 1889 Osler & Grace took an excursion (with a chaperone) to a leper colony in New Brunswick.



Dr. & Mrs. Wm. Osler, 1894

Early in 1892, soon after Osler had received the first copy of his new textbook, he journeyed to Philadelphia, "threw it in her lap," and added, "Now what are you going to do with the man." Several months later the couple were quietly married in a local church. There is no record of friends or family in attendance.

23




The Osler home in Baltimore:
West Franklin & Charles Streets,
1892-1905

The Oslers established their residence at 1 West Franklin St. in downtown Baltimore. To their home came students & residents, local colleagues & visitors. Next door, at 3 West Franklin, for a time lived Harvey Cushing and other senior residents & fellows of the Hospital. Some were given keys to 1 West Franklin in order to use Osler's library and were called the "**latch-keys**." In turn, Osler often used their telephone, refusing to have one at 1 West Franklin. He went by way of an opening in the fence separating the two back yards.

24


Mrs. Osler often had no certain knowledge of how many guests Osler would bring to dinner. And he was not above leading her astray in other areas. For example, Osler once announced that he was bringing home for dinner a famous foreign doctor who was a **bit deaf**. He cautioned Grace to speak loudly to him. He had also told the doctor that his wife was **rather deaf**. During the dinner Mrs. Osler sat at one end of the table and the guest at the other, each shouting at the other, much to the quiet amusement of Osler.



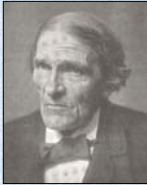
Grace Osler, 1894

During a 1900 vacation to the Dismal Swamp in Virginia, Osler took along a copy of Robert Burton's **The Anatomy of Melancholy** (1621). On a fly-leaf he wrote a fictional account of tying a moccasin snake into an "insoluble coulber knot" and of reading Lincoln's proclamation to some fugitive slaves hiding in the swamp who had not heard of the Emancipation.

31




Osler succeeded Sir John Burdon-Sanderson as Regius Professor of Medicine at Oxford in 1905.



Burdon-Sanderson (1828-1905) initiated in London and transplanted to Oxford the modern (German style) study of physiology, thus rendering English medicine finally scientific.
Recall that Osler worked in Prof. Sanderson's lab at the University College in London in 1872-3.

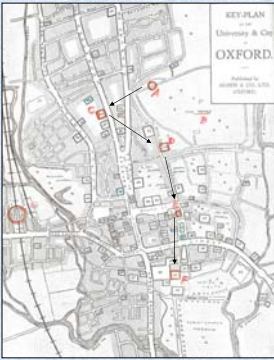
32



Oxford,
the City of Spires


The Oslers arrived in Oxford in May 1905 and purchased a home at **13 Norham Gardens (A)**, just north of the **University Parks (B)**.
-- As Regius Professor of Medicine, Osler served as "an active consultant at the **Radcliffe Infirmary (C)**."
-- He had an office and laboratory rooms at the **University Museum (D)**.
-- He became a curator *ex officio* at the **Bodleian Library (E)**.
-- He was elected a "student" at **Christ Church (F)** – the equivalent of a fellow elsewhere at Oxford – and had rooms in its Old Library.
These five retreats are all within walking distance of one another and are identified on the following map as A-F.

33



A. 13 Norham Gardens
B. University Parks
C. Radcliffe Infirmary
D. University Museum
E. Bodleian Library
F. Christ Church
G. Train station

34



The Oslers, June 1905, at 7 Norham Gardens, a house rented before purchasing 13 Norham Gardens in 1906.
Revere is age 10 here.

35




13 Norham Gardens
a. entrance (Open Arms)
b. garden side facing Univ. Parks

36




13 Norham Gardens, garden side of house, 1998

The garden of 13 Norham Gardens, looking toward University Parks



Osler & friends in the garden of 13 Norham Gardens



Osler in his library, 13 Norham Gardens



Radcliffe Infirmary -- founded 1770 -- closed 2007



Picture of Cosmas & Damian, patron saints of physicians & surgeons, placed outside RI surgery by Osler.



University Museum, 1859-60



University Museum, 2005

University Museum, where Osler had an office and several laboratories used by previous Regius Professors of Medicine



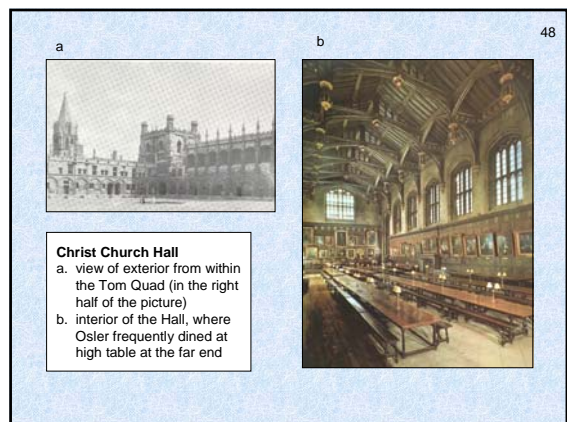
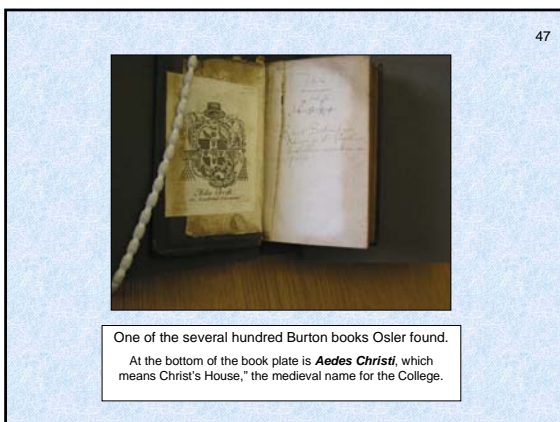
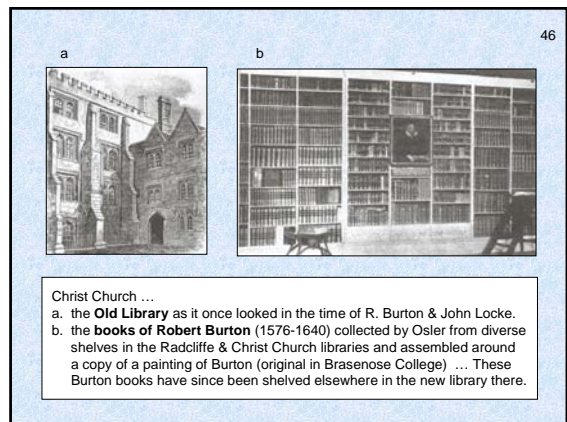
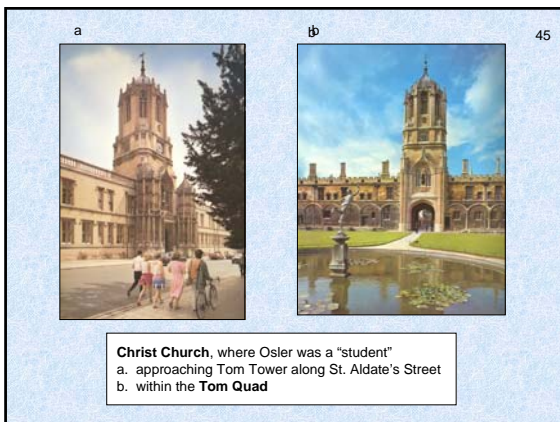
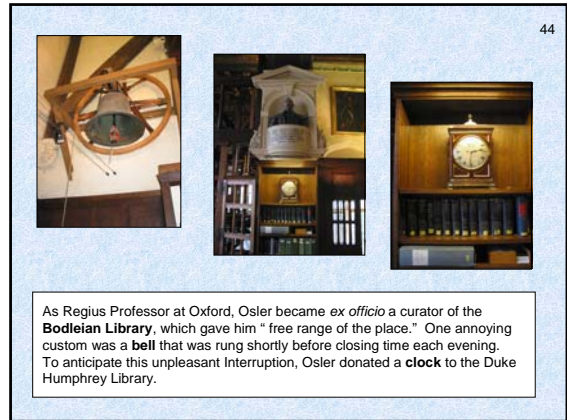
The main exhibition hall of the Museum. On a nearby corridor is the door to the office of the Regius Professor. (2005)



a. Old Bodleian Library showing a corner of the Radcliffe Camera




b. Radcliffe Library, better known as the Radcliffe Camera



49

When Osler became **Regius Professor of Medicine**, he also become Master of the **Almshouse at Ewelme** [you-elm] outside **Oxford**. In 1906 in a forgotten, rusty safe there, he found 14th-16th century documents relating to the Almshouse's founding.







St. Mary's Church at Ewelme Almshouse at Ewelme

50

In Feb. 1911 Osler learned that a **baronetcy** was to be conferred on him. He had rejected previous overtures for fear he would be viewed as a newly arrived American title hunter. Grace persuaded him to accept and he did so as much to honor Canada as himself. The title would pass to **Revere**, which upset the unassuming youth.





His baronial coat of arms included a **beaver** for his Canadian background, **three fish** because of Revere's interest, and the motto '**Aequanimitas**.'


Later in 1911 Osler's financier brother, Edmund Boyd Osler, was knighted.

51

a



b




Edward Revere Osler was a diffident scholar when young but passed the matriculation exam for entrance to Christ Church, Oxford. During the fall term of 1914 he was an undergraduate while his father, now Sir William, was in his 9th year as a senior student there.

Revere was serving in the Royal Field Artillery near Ypres, Belgium when he was killed by an German shell, Aug. 1917. Cushing attended him at ~~the~~ **end**.

52

The death of Revere in 1917 was the one dark shadow over Osler's otherwise gifted life. Like other British and Commonwealth parents, the Oslers had feared this outcome. That Dr. Harvey Cushing had been present during Revere's last hours was a consolation. So many battle deaths had occurred that memorial service and public mourning were omitted. Flowers were placed in his room.

Osler bore his sorrow with outward equanimity, maintained his schedule, and hosted the steady stream of visitors to the Open Arms as before. However, he lost 30 lbs. and now seemed to some to have become a shrunken "little old gentleman."

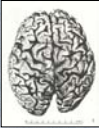



His last picture, Nov. 1919


Osler escaped contracting the 1918 flu. In Jan. 1919 he performed an autopsy and published the case. Later he gave the presidential address at the Classical Association and spent a relaxing 6-week holiday on the Isle of Jersey.

53

During his 70th birthday celebration (July 12th), Osler developed a **cough**. In Sept. while in Edinburgh, a train strike turned the usual overnight return into a stressful 2-day trip requiring a car & driver. By Oct. he was bedridden with **bronchitis** for which only opium gave relief. In Nov. he developed **pleurisy**. In late Dec. **empyema fluid** was drained from his chest and grew out *H. influenzae*. *S. pneumococcus* had been cultured previously. Osler commented that he regretted he would not see his post mortem. He died Dec. 29th, 1919.

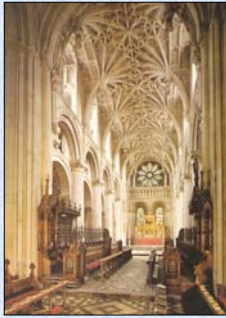
Osler's brain,
Mutter Museum,
Philadelphia,
2004




His autopsy disclosed a right lower lobe necrotizing pneumonia with empyema. It's postulated that narcotic drugs may have led him to **aspirate** during paroxysms of coughing and that in addition to facultative pathogens he also had **anaerobes** deep in his lungs which contributed to the necrotizing processes.

54

a





b



Christ Church Cathedral
a. the Choir
b. **Lady Chapel**, where Osler's coffin remained overnight on Jan. 1st, 1920.

55


With the death of Sir William, the Open Arms lost its lodestone. Nevertheless, Lady Osler sought to continue the traditional hospitality for young people coming to Oxford. In the library of 13 Norham Gardens Osler's spirit remained. During the next 7 yrs., **W.W. Francis & R.H. Hill** were sequestered among Osler's books compiling the 792-page **Bibliotheca Osleriana**, in which Osler's treasures were listed in a unique system he devised.

Dr. Wm. W. Francis & Mr. R.H. Hill

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The **Bibliotheca Osleriana** is the collection of medical books assembled by Osler during his lifetime. It includes over 7600 bound volumes, and is now housed at the Osler Library, McGill University.





The **Bibliotheca Osleriana** contains first editions & other significant works which form the scientific basis of western medicine, e.g., an early book by Vesalius shown here.

Within this collection are



- 163 manuscripts (before printing in the 1450s) and
- 383 incunabula (books printed between 1450s & 1500).

57

In the summer of 1928 the **7800** medical books & manuscripts were boxed for shipment to **McGill University**. Shortly afterwards, in Aug. of that year, Lady Osler had a massive stroke and died. Her ashes were placed next to those of Sir William behind the bronze plaque depicting Osler (see below) in his library at McGill.

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Above: The **Vernon plaque** at the Osler Library of the History of Medicine, McGill University.

Left: The **Osler Niche**, where rest the ashes of Osler & his wife.
(Photograph by Karen Coshof.)

59

Postscript -- Osler and Literature




In his youth Osler delighted in the libraries of his several mentors and, later in life, in the thousands of books he himself collected. But it takes **discipline** to sustain a career in **medicine** and a lively pursuit of the **humanities**, thereby gaining a liberal education.

To accomplish this Osler advocated devoting ½ hr each day to reading medical articles and ½ hr at bedtime to reading great literature.

"The driven and tired practitioner might plead that he could not find time to read. He could not **UNLESS** he had formed the practice in less busy days; then **the habit of reading**, like any other habit, became his master."

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Osler's Close Friends


- Old & New Testament
- Shakespeare
- Montaigne
- Plutarch's Lives
- Marcus Aurelius
- Epictetus
- Brownie: *Religio Medici*
- Don Quixote
- Emerson
- Oliver Wendell Holmes

Osler recommended a **bedside library** of the books and authors noted above. His list may seem daunting to modern students and not the joy & temptation that he intended **bedtime reading** to be. Also, reading of this sort is best when it is a personal adventure – when the books are discovered by the reader. Nonetheless, here is a new list which might delight the modern medical student.

Modern Discoveries

- Eliot: Middlemarch
- Cronin: The Citadel
- Camus: The Plague
- Douglas: *Magnificent Obsession*
- Mann: Buddenbrooks ... also Magic Mountain
- Cousin: *Anatomy of an Illness*
- Shaw: *The Doctor's Dilemma*

61



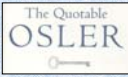
Above the fireplace mantle in Osler's library were portraits of Linacre, Harvey, & Sydenham – early English physicians whom he admired. He wrote **biographical essays** about others – Fracastorius, Servetus, Sir Thomas Browne, Locke, etc., which were collected in the anthology, **An Alabama Student**, 1908, 334 pp.

Among his other **humanistic and moralistic writings** are

- **Men and Books**, ed. EF Nation, 1987
- **Aequanimitas with other Addresses**, 1932 ... 453 pp.
- **Osler & Other Papers**, ed. WS Thayer, 1931 ... 386 pp.
- **A Way of Life**, 1932 ... 47 pp.
- **Science & Immortality**, 1904 ... 94 pp.
- **The Works of Egerton Yorrick Davis, M.D.**, ed. RL Golden, 1999 ... 163 pp.


62

Osler's voluminous writings are a treasury of **memorable quotes & bon mots**. Many relate to **medical practice & medical education**.



- "Soap and water and common sense are the best disinfectants."
- "One finger in the throat and one in the rectum make a good diagnostician."
- "Observe, record, tabulate, communicate. Use your five senses."
- "It is astonishing with how little reading a doctor can practice medicine, but it is not astonishing how badly he may do it."
- "It is easier to buy books than read them and easier to read them than to absorb them."
- "Education is a lifelong process, in which the student can only make a beginning during his college course."
- "The **Master Word** of medicine is **Work**."

63




Many of Osler's aphorisms relate to life in general. One especially relevant to our times is

"The greater the ignorance, the greater the dogmatism."

- "Laughter is the music of life ... keep oneself young with laughter."
- "Cultivate the art of **imperturbability**," – i.e., learn to consume your anger.
- "Acquire the art of **detachment**, the quality of **thoroughness**, but above all the grace of **humility**."
- "We are here to add what we can to life, not get what we can from it."

64



The **latchkey** was given by Osler to several Hopkins doctors living next door to him in Baltimore. Now it is the symbol of the **American Osler Society**

65

Acknowledgements

Many of the illustrations for this power point presentation were taken from the following books, which provide rich details about Osler's life.

- Cushing, H: **The Life of Sir William Osler**, 2 vol., 1926/1940 ... 685 + 728 pp.
- Bliss, M: **William Osler, A Life in Medicine**, 1999 ... 581 pp.
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- Bryan, CS: **Saints of Humanity, Selections from WO's Bedside Library**, 2002 ... 116 pp.
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66

revised ... 18 Feb. 2011