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and His Library

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Book-Collecting

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RECOLLECTIONS OF HARVEY CUSHING AND HIS BOOK-COLLECTING

E. P. GOLDSCHMIDT*

ONE of the first times Dr. Cushing came to my Bond Street office (together, I think, with his friend, Dr. E. C. Streeter) I sold him the Magnus Hundt *Anthropologia* of 1501 with its astonishing skeleton broadside, of which only two other copies are known. I was thoroughly convinced of the extraordinary interest and rarity of this early curiosity and my enthusiasm expressed itself in a very stiff price. Dr. Cushing paid that price without wincing. From this fact I felt entitled to draw the conclusion that here was a collector keen on bones. His further instructions to me on the authors and titles he was interested in: Vesalius, Paré, Ryff, and others like that, confirmed the impression, which was correct in those early years, that Dr. Cushing was primarily interested in the history of anatomical illustration, and that any early book with bones in it was likely to appeal to him unless he possessed it already.

In the following year, 1929, I set out for the first time on a trip across the Atlantic to visit my American customers in their homes. I tried to bring together a collection of books to take with me to show, and my aim was to have one really important item in the special line of each one of my chief customers. I had found a good and complete copy of Paré's *Dix livres de chirurgie*, 1564, a much rarer book than the *Cinq livres* of 1572, so I thought this would be the thing to bring along to Dr. Cushing. When I reported myself as having arrived in Boston, he invited me to his house and we had a grand talk about books. After a time he said: "Well, did you bring anything with you to show me?" "Oh, yes," I said, "I brought a very rare octavo of Paré, the *Dix livres*." "Oh, the *Dix livres*? That is indeed a scarce and interesting book," he said, "do you know that there are

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two different variants of the 1564 edition of the *Dix livres?*" And he got up and took me to his bookshelves, and there was a whole row of octavo Parés, about 12 or 15 of them, including two slightly differing copies of the book I had meant to tempt him with. Obviously the task of supplying Dr. Cushing with important books on anatomy which he did not yet possess was by no means simple.

My talks with Dr. Cushing on this and on following occasions, both here and in America, led to a better acquaintance with his wider field of interest which was by no means confined to "bones." Beyond the history of anatomy, he turned out to be interested in the history of surgery, then in the history of medicine generally. In the course of time the range of our talks spread out and it soon was apparent that Dr. Cushing, who had started with his Vesalian hobby, had conceived a plan of bringing together a library to comprise all the most important books marking the chief advances in all the exact sciences.

Inasmuch as I learned a great deal in these conversations, I might claim to call myself one of Dr. Harvey Cushing's pupils. There was more in them than just a so-called "opening up of perspectives," a "stimulation of interest," a revelation of analogies and continuities in the whole secular course of scientific thought. If I may venture to say what remains most firmly impressed in my recollection of these memorable talks, I would sum them up with two characteristics: the great humility of the true scholar in the contemplation of the huge mass of the knowable but unknown; and, on the other hand, the ready exactness and certitude of his knowledge when he spoke with assurance about a subject he had fully investigated.

That, in my experience of many contacts with many types of men, has always seemed to me the touchstone or hallmark of true greatness of learning: to know when we truly know, to be aware when we merely surmise.

Here was one of the greatest surgeons of our epoch, the acknowledged master of all the intricacies of the convolutions of the human brain, who would question me on a problem of early printing with the modesty and eagerness of a fourth-form schoolboy. But when he spoke about Vesalius, about the relationship of the *Tabulae sex* to the *Fabrica*, when he discussed with me the mysterious appearance of the rudiments of the *China-Root Epistle* in a French Galen printed at Tours in 1545, then his tone was that of authority, he knew that he knew, he knew that he had himself examined all the evidence available, and that, whether his opinion was right or

wrong, there was nothing to be said in our present state of knowledge that he was not familiar with. A great teacher!

In 1932 I was again in Boston. I rang up Dr. Cushing. He asked me to show him my books at his office in the Peter Bent Brigham Hospital. So I took a suitcase full of them in a taxi, and was shown through a number of corridors into the Chief Surgeon's private office. There I unpacked what I had brought, and the little room was soon spread all over with incunabula, woodcut books, and manuscripts. While we were eagerly discussing what he *had* to have, what he need not have, and what he definitely would *not* have, there was a knock at the door. "Come in," said Dr. Cushing, and in came two young internes, two freshly baked surgeons who were making use of the much prized permission to drop in any time and have a chat with the great man. When they saw me and the room all cluttered up with books they wanted to run away. "Oh, come right in," said Dr. Cushing, "this is Mr. Goldschmidt of London, who is out to tempt me with all sorts of books. Just come and look at them. He is telling me all kinds of fanciful stories about them. Now, what do *you* know about Constantinus Africanus?"

Rarely have I seen two young medical students so frightened and embarrassed. But Dr. Cushing soon reassured them that this was not an examination, and between us we got them quite interested in those funny old books, and even asking questions about them. Indeed they helped me to make up Dr. Cushing's mind, and I believe that that 12th century manuscript of Constantinus Africanus, *Liber Viaticus, seu de morborum curatione*, was the first mediaeval manuscript he ever bought from me.

To my mind, and the way I look at books and book-collecting, mediaeval manuscripts, the books our forefathers used before the invention of printing, are the supreme objects deserving the respect and reverence of all of us who look upon books as the vehicles for the transmission of knowledge from generation to generation. No library attempting to illustrate the historic development of any branch of human knowledge can, in my estimation, stand in the first rank, if it fails to carry its story back beyond the date of Gutenberg's invention. A venerable manuscript, laboriously and carefully written on vellum, which shows us from what books the students of 600 years ago learned about the *Curatio morborum a capite usque ad pedes*, is, I should say, the best visual antidote to 19th century "progressive" conceit and the most convincing reminder that we see only a little farther into the mysteries of Nature than the 13th century did, because,

as Thierry of Chartres said, we are dwarfs standing on the shoulders of giants.

It would seem that my regard for early manuscripts found an echo in Dr. Cushing's heart, and, from 1932 onwards, he bought one or two fine manuscripts from me every year. In the printed *Short Title List of the Cushing Collection* the first section, called "Manuscripts," lists 60 items, most of which I would prefer to call either "autographs" or "papers," but it comprises 19 manuscripts written before 1500. Of these 19, nine have passed through my hands.

Not all of them are strictly "medical" in our sense of the word. Dr. Cushing knew well that the mediaeval physician had to base his diagnosis and his treatment on astrological data and that, though this procedure may seem to us most "unscientific," our present-day "scientific" processes of observation and of reasoning were largely developed in the school of astronomical observation and in the precise use of astronomical instruments. Therefore he was happy to acquire the splendid *Codex* (No. 9 of the Catalogue) containing 24 astronomical treatises of the 13th and 14th centuries, as well as a folding Star-Chart established in the 13th century Paris schools. This precious volume contains not only the treatises on the structure of the universe by the great English 13th century scholars Robert Grosseteste, Bishop of Lincoln, and John of Holywood (Sacrobosco), but also some instructions for the building and the use of the current astronomical instruments with which every mediaeval doctor had to be familiar. This great book, which still awaits its proper analysis and publication, was acquired by me from the convent of the Order of Preaching Friars in Vienna and sold to Dr. Cushing in 1936.

In those years Austria was my principal happy hunting ground, and the financial straits in which the ancient monasteries and abbeys there found themselves afforded extraordinary opportunities for buying from them books which had stood on their shelves for centuries. In 1936 I was able to conclude a deal with the famous old Benedictine abbey of Melk by which I came into possession of a number of their manuscripts. In January 1937 I arrived in New York and wrote to Dr. Cushing reporting myself back in the U.S.A. and hinting at a hoard of irresistible manuscripts. He answered that he had just undergone an operation and that I was to allow him a few weeks more to recover and that in February he would see "how much blood he could let me draw."

When I saw Dr. Cushing in February 1937 he was still confined to a bath-chair, but he was as gay and as keen as ever. Three of these Melk

manuscripts figure in the printed catalogue (Nos. 7, 8, and 33). One of them is a 15th century volume on paper containing a collection of 25 astronomical treatises, very similar in character to the Vienna *Dominican Codex* I mentioned, but 200 years later. Consequently the authors represented are of another period: instead of the 13th century Grosseteste, Sacrobosco and Gerard of Cremona, we have here the great astronomers and mathematicians of the 15th century Vienna school: John of Gmunden, George Peurbach, Regiomontanus, the direct teachers of Copernicus. There is the treatise on the Squaring of the Circle by the great Cardinal Nicolaus of Cusa, one of only two manuscript copies known before its first appearance in print, 1565. There are a number of treatises on instruments: the astrolabe, the quadrant, the torquetum, and even one on the "Baculus Jacob," the Jacob's Staff, the primitive navigation instrument for taking the height of the stars by means of which Columbus sailed to America.

Another Melk manuscript now in the Cushing Collection is a 13th century medical textbook on vellum, probably from Padua University. It is most interesting as showing the standard mediaeval collection of texts, the so-called "*Articella*," in its incipient or embryonic stage. This handbook ultimately came to comprise seven, or even 13, treatises on medicine which the student had to master. But its nucleus always remained the *Microtegni*, the *Ars parva* of Galenus with the commentary of Haly ibn Ridwan, and some treatises by Hippocrates likewise translated into Latin, not from the Greek, but from the Arabic. In this early codex there are only the *Ars parva* and four Hippocratic books.

But in my fond recollection the finest of the three was a beautiful 13th century vellum codex of the *Compendium medicinae* of Gilbertus Anglicus, of Gilbert the Englishman, who accompanied Richard Coeur de Lion on his crusade and whom Chaucer still knew of and mentions in the *Canterbury Tales*. It is a beautiful book, handsomely written and in wonderful condition, and (a point that pleased me particularly about it) it had on the last page the bill of the "illuminator" charging for: "seven flowered initials, half red, half blue, 291 smaller flowered initials, and fifty times one hundred (5000) paragraph marks in red and blue."

I could go on gloating for a long time over the fine books I was fortunate enough to furnish to Dr. Cushing. But I think this should suffice. You will have gained the clear impression that, whatever may be the satisfaction to the collector, whatever may be the service to the cause of learning arising from the formation of such a library, it is the bookseller who gets the most fun out of such an enterprise. For every book he finds, for every

item he has the pleasure to handle, to describe, to recommend, and to sell, he gets a cheque which enables him to continue his search. And of the hunting of books, as *Ecclesiastes* should have said, there is no end.

THE FORMATION OF THE HARVEY CUSHING COLLECTION

E. WEIL*

THE United States is very fortunate to have such excellent medical libraries. They have been developed rapidly since the 1870's, and are headed by the Surgeon General's Library in Washington, or the Army Medical Library, as it is also called — the finest and largest medical library in the world. Its combined Index-Catalogue of authors and subjects, arranged in a single alphabet in dictionary order, describes about a million items. John Shaw Billings, a distinguished army surgeon in the Civil War, published in 1876 a *Specimen fasciculus*: since 1880 volume after volume of this well-known Index-Catalogue has been published. As the cost of each volume was modest, this excellent Catalogue, the only one with full collations and bibliographical details, has become the basis for everyone working on medical bibliography, and it is accessible in numerous libraries. A new feature of this Catalogue is the bio-bibliography of 16th century medical authors, the first fasciculus of which was added in 1941 to the sixth volume of the Fourth Series.

Although at least one of the other famous medical libraries, the Library of the College of Physicians, Philadelphia, was founded in the 18th century, the development of this library, as well as that of the Library of the New York Academy of Medicine, the library of the Medical and Chirurgical Faculty of Maryland, and the Boston Medical Library with Oliver Wendell Holmes as its first president, did not take place until about 1880 and later. They were followed by the libraries of the great medical schools, Harvard and Johns Hopkins. The Osler Library at Montreal which so obviously invites comparison with the Cushing Collection was given to McGill University after the last war, but the Harvey Cushing Library now at Yale is the finest gift of books by a medical man since William Hunter left his library to Glasgow University. With the creation of the new Yale

* Antiquarian of London.

Medical Library which was dedicated in June 1941, Yale may well be ranged with the older libraries I have just named.

Harvey Cushing died of angina pectoris on 7 October 1939 at the age of 70. He had left the Harvard Chair of Surgery at the age of 63 to return to Yale, his Alma Mater, first as Professor of Neurology, then as Professor of Medical History. Cushing had met Osler and Welch at Johns Hopkins Hospital, where he spent 15 years of his life. Professor Jefferson in his warm appreciation of Dr. Cushing in the *Manchester Medical School Gazette* has so well characterized the relations between Cushing and Osler — which went far to arouse the collector's instincts in Cushing — that I beg leave to quote him:

The friendship which sprang up between the two proved to be a vital factor in Cushing's life, and probably not less in Osler's. It oversimplifies the development of Cushing as the lover of books to say it was due to Osler. Cushing's whole life shows him to have been basically a collector. Men are born that way or not. Cushing collected and classified cases and varieties of tumours, labelling them, docketing them, filling gaps in much the same way that he collected Vesalius, who fascinated him as Browne did Osler. The admiration and affection flowered later in the great Life of Osler. The great common bond between them was in books, as Osler's letters to Cushing witness, when the former was travelling in Europe. They shared ideals in the meaning and uses of the medical life in its highest intellectual plane, as well as at a humanitarian level, as the similarity of their writings on these subjects shows. The occasional papers of both men show the same temper, reveal the same long hours of patient reading amongst the older masters, the same drive towards a realisable ideal. That Osler was the more scholarly and the more studious reader of the classics of literature and of medicine cannot be denied, but the modern range of the younger was the greater.

When Sir William Osler died, shortly after the last war, his important contribution to medical history, the *Incunabula Medica*, was not quite ready for the press. A. W. Pollard and J. V. Scholderer saw to its publication in the same way that Dr. John F. Fulton saw to the publication of Dr. Cushing's book on Vesalius, which was published simultaneously with the Short-Title Catalogue of the Cushing Collection, almost exactly a year ago. Sir William Osler bequeathed to the Medical Faculty of McGill University, Montreal, his collection of about 8000 volumes illustrating the history of medicine and science, and I am sure the fine catalogue, the *Bibliotheca Osleriana*, which was published in 1929, is familiar to you. At the time of Osler's death the outline of this catalogue had been sketched and the form and contents of the *Bibliotheca Prima* had been decided. You certainly remember that this interesting catalogue, full of the fascinating

notes by Osler on the provenance of his books and on other points, is divided into two parts: the *Bibliotheca Prima* and the *Bibliotheca Secunda*. Osler had presented to the members of the Classical Association in May 1919 his idea of the *Bibliotheca Prima*: "To have in a comparatively small number of works the essential literature grouped about the men of the first rank, arranged in chronological order." I feel sure that the idea was always underlying the collecting mind of Dr. Cushing. This idea is still alive; it has been modified and has again come to the fore in the most recent deliberations on the problems facing such large collections of books as those composed of current texts and historical material as, for example, those in the Army Medical Library. This Library has evacuated its 30,000 volumes of historical material to Cleveland; the incunabula are kept as a special collection and all the other books printed before 1800 are arranged alphabetically by centuries without worrying about signatures, so that one can find anything in the entire collection with no delay. Apparently this emergency system has worked so well that a Survey Committee of the best known librarians, which was appointed in 1943, has come to the conclusion to leave it at that, and to divide the material of such large, composite collections into the following categories:

1) *The live collection* of current texts printed within the past 25 years classified more or less minutely in accordance with a modern system of classification, for example, the Library of Congress system of notation.

2) *Older material*: All volumes between 1800 and, say, 1920, would be classified in less detail than the live collection.

3) *Rare books*: In this section would be included all volumes printed before 1800 and such additional rarities up to the present as seem to deserve such classification, *i.e.*, Beaumont's *Experiments on the gastric juice*, 1833, as well as Roentgen's pamphlet of 1895 on the X-rays, or Florey's paper on the therapeutic action of penicillin.

I now come to the Cushing Collection proper and in the first instance apologize for my temerity in venturing to speak about this library without having seen it. As I mentioned, the library was dedicated during the war, and only a very few persons in this country have yet seen it. But for 20 years I watched its formation eagerly and during these years I corresponded with Dr. Cushing and saw him when he was in Europe. In a small way I contributed to the formation of the collection. In the early 1920's when I started to be a bookseller Mr. E. P. Goldschmidt used to visit me several times yearly at Munich, and he always found some early surgical or anatomical books — especially books by Vesalius or other books with "bones" — which he took with him to London. These regular inquiries

not only suggested an unknown collector of such books; they also formed the beginning of a friendship which opened for me a niche in London when the time came for me to leave Germany in 1933 and provided me with ten years of most interesting collaboration with a great scholar and bibliographer.

My chief client for early medical books was then the late Dr. Crummer of Omaha who left his fine collection to the University of Michigan where it is shelved in a separate room around the urn which contains his ashes. The only book which was detached from the collection was the first edition of Harvey's *De motu cordis*, 1628, a copy on large paper (with the errata leaf which is so often missing) and nobly bound in vellum with the arms of a 17th century abbot of Lambach in Austria. This copy I found for him in 1926. Dr. Crummer used to come to Munich every year in the late autumn, and I owe to him not only much of my knowledge of early medical books but also of that American invention, the cocktail. Probably he gave my address to Dr. Cushing and one of the first books I sold to Dr. Cushing was the so-called Fontana-Vesalius, a 17th century Amsterdam reprint of Gemini's *Anatomia*. Osler aroused Cushing's interest in Vesalius. One has only to read Osler's enthusiastic notes in the *Bibliotheca Osleriana* (p. 58) where he also demands, "A good life of Vesalius in English should be written." The *Fabrica* of 1543 was one of the earliest books Cushing owned and he liked to quote a postcard from Osler addressed to him from Guernsey in July 1903 in which he exclaims: "I have bagged two 1543 *Fabricas!*" 'Tis not a work to be left on the shelves of a bookseller." But there were other reasons why Cushing chose to collect Vesalius and to write such an interesting and at the same time intricate work as the Vesalius Bio-Bibliography. Let me quote from Dr. Fulton's preface: "In the impetuous Vesalius, Harvey Cushing saw a vigorous and indefatigable character with a stormy temperament similar to his own — a man with artistic leanings who gave unremitting attention to detail — all of which aroused Cushing's admiration and caused him to follow Vesalius with instinctive determination and persistence. During the forty years from 1899 until his death Cushing pursued the trail; he collected everything conceivable relating to him, including the writings of a host of less gifted followers who copied the Vesalian text and figures. . . ." With many of my colleagues I helped for years to fill in the gaps of the Vesalius collection. In a collectanea volume from a monastery library I found what is probably the only copy of the China-Root Epistle in German printed at Würzburg in 1548. I found a number of the *Consilia* (i.e., written con-

sultations) of Vesalius which are hidden away in obscure collections of consultations, and other Vesaliana.

Another important find was the Anatomical Tables, the so-called *Tabulae sex* of 1539, only one other copy of which has turned up in my generation. Chapter II of the Vesalius Bio-Bibliography is devoted to the *Tabulae sex*. In December 1537, just before his 23rd birthday, Vesalius received his appointment from the Venetian Senate to the chair of anatomy at Padua. He was then, together with his fellow countryman Jan van Calcar, a very gifted draftsman, working on six very large anatomical sheets of which three were skeletal plates. They show the imprint of a Venetian printer, Bernadinus Vitalis, and are dated 1 April 1538. No doubt they were intended for teaching purposes, to be placed on the walls of a lecture room. This seems to be the reason for their rarity. Only three copies have survived. They were at once copied — extremely well copied, in fact — by an Augsburg woodcutter and printer-publisher Jobst de Necker, dated 1 June 1539. A set of these Augsburg tables turned up at Munich in 1926. They came from a small bookdealer's shop at the back of the University building, a shop frequented by artists, the bookseller's brother being himself a well-known book-illustrator. The *Tabulae* were being used in 1926 by an artist as anatomical models. There were five of the tables; I could never trace the sixth and I had a facsimile made after the copy in the Bavarian State Library, one of the two other copies extant. When, on the occasion of the Neurological Congress at Berne in 1931, Dr. Cushing came to Munich and I had the unforgettable pleasure of spending a long day with him, the first thing we did was to look at the Bavarian State Library copy of the de Necker *Tabulae*.

In 1934, not long after Dr. Cushing's arrival in New Haven and after he had interested two of his close friends, Dr. John F. Fulton and the late Dr. Arnold C. Klebs, in the idea of combining their collections, the inception of a representative historical collection took place. Let me quote from a letter of 4 October 1934 to Dr. Klebs:

I woke up in the middle of the night with the thought — why not a Klebs-Fulton-Cushing Collection so that the three could go down to bibliographic posterity hand in hand. Just imagine some young fellow long hence stumbling on our diaries and papers and correspondence about books. I envy him to think what fun he would have, for I think in a certain way our three collections have a more personal and intimate provenance than has William Osler's library.

All this has come up to me for I am redrawing my will and I plan to leave enough to start a professorship of the history of medicine. It's just possible the

University might switch my Sterling Professorship to that purpose and then the income of my bequest would be used for book purchases.

I don't know what your own plans may be if you have any. I know that you once thought of establishing at Les Terrasses a foundation for medico-historical studies. This you may still intend to do but if not and if this other idea has any interest for you do let me know.

Soon other friends of Dr. Cushing — Dr. Edward C. Streeter, Dr. Clements C. Fry, and Dr. George M. Smith — were interested in the scheme and they have already made notable contributions to the Library. I should like to quote from a pamphlet describing the Library as it was on its foundation in 1941:

The Cushing Collection. By common consent Dr. Cushing's gift represents one of the greatest collections of the classics in the fields of surgery and anatomy ever brought together by a private person. The groundwork of this great aggregation is formed of printed documents of the earliest period of medical writing, including some 150 of the outstanding works in medicine and science of the incunabula period. Dr. Cushing was also deeply interested in English medical documents of the sixteenth century, and assembled an extensive collection of Tudor and Elizabethan medical writings, probably second only to the collections of the Huntington Library and the British Museum. In addition, his large assemblage of the works of the sixteenth-century anatomist, Andreas Vesalius, and of the works of his followers and plagiarists, is unique, since it is the foremost collection of Vesaliana ever brought together.

There are also extensive individual collections of Harvey, Culpeper, Garth, and Mead, all of whom are somewhat outside strictly anatomical and surgical fields. Finally, there is a generous scattering of fundamental publications in astronomy, physics, chemistry, geology, and in botany, embryology, and various other divisions of the biological sciences. The collection embraces in all some 15,000 volumes.

The Klebs Collection. A second collection which may be destined for the Library is that of Dr. Arnold Klebs of Nyon, Switzerland, who through his son-in-law, George Stewart, Yale 1915, and through his life-long friendship with Dr. Cushing, has strong ties with the School of Medicine. This library has three outstanding components. In the first place, Dr. Klebs, long an authority on tuberculosis, has collected the more important contributions in the history of that disease. His second interest has been the history of variolation and smallpox, in which a unique aggregation has been brought together. Finally, and perhaps of greater significance, are the many specimens of medical and scientific incunabula and photostats of one page or another of almost every existing medical and scientific incunabula.

The incunabula of medicine and science represent Dr. Klebs' special field, and he has also accumulated a large store of "apparatus" for the study of the fifteenth century books: i.e., books *about* fifteenth century books. Dr. Klebs is

now actively engaged in preparing a definitive, richly annotated catalogue, as an introduction to which he has recently issued a short-title hand list of this vast literature.

Dr. Klebs died on 6 March 1943 at Nyon. The 1944 *Report of the Historical Library* tells me that the Arnold C. Klebs Library has already been packed in 110 cases ready to be shipped to Yale after the war. Seven cases are filled with incunabula; all in all there are about 20,000 volumes, including Dr. Klebs' unique collection of separata dealing with the History of Medicine and Science bound into about 5000 volumes.

In 1938 Dr. Klebs published a *Short-Title List of Incunabula Scientifica et Medica*, listing more than 1000 titles, without counting the different editions; there are more than 3000 editions in all. This Short-Title List should have been followed by a descriptive catalogue on which Dr. Klebs worked for many years. As I see from the inventory of the American Consul at Geneva, this material alone fills six cases to which three cases of scientific correspondence have to be added. We may well expect one day a full-fledged bibliography of the scientific literature of the 15th century derived from this material. Dr. Klebs' Short-Title List, controversial as a number of points in it certainly are, has already become a valuable tool in this field.

The Fulton Collection. A third collection, that of Dr. John F. Fulton, Sterling Professor of Physiology in the Yale University School of Medicine, is composed of works in the field of physiology and experimental medicine. Neurophysiology and neurology are emphasized — with an especially large representation of seventeenth-century items. There are several authors whose works are particularly well represented, such as Robert Boyle, Sir Thomas Browne, Sir Kenelm Digby, Joseph Priestley, Thomas Willis, etc. Dr. Fulton has also been interested in "apparatus" and has much source material bearing upon many phases of medical history and biography. He contemplates issuing at some time in the future a *Bibliographia physiologica*, and his physiological collection will form the background of this special bibliography.

Dr. Edward C. Streeter of Stonington presented to the Library his unusual collection of early pharmaceutical jars and a unique collection of weights and measures drawn from the earliest civilizations of Egypt and Babylon down to the late Renaissance. These collections have since been greatly enlarged by further gifts of Dr. Streeter and source books on the history of pharmacy and the history of weights and measures.

The Library of the Yale School of Medicine was founded in 1917 and in 1931 it had between 6000 and 7000 volumes which were housed in the School. Following the decision of Dr. Cushing and his friends to leave

their important collections to Yale, the Yale Corporation in 1936 authorized Grosvenor Atterbury, one of the foremost American architects, to draw up plans for a new medical library, and in June 1939 funds were made available for the building. Dr. Cushing had believed that a medical library should be entered from the first floor, "That it should be in the center of gravity of the school; and, if possible, the historical division should be as accessible and attractive as the division housing modern medical texts and journals." Dr. Cushing's dreams have come true. This very fine new library is 'Y' shaped, with two wings: the working library takes one wing, the historical library the other wing, both extending over two floors and joined by a noble rotunda, dedicated to Harvey Cushing by his classmates of Yale '91 — a dignified exhibition room. At the end of the historical reading room hangs a large portrait of Vesalius attributed to Calcar who probably designed the woodcuts in the *Fabrica*. At the opposite end of the library are two portraits, one of Joseph Priestley by Artaud and the other of Helmholtz by Hans Schadow. The two bronze statuettes of Vesalius and Paré by a Belgian artist, cast about a hundred years ago, probably for the Vesalius Tercentenary of 1843, which I found recently, will also find a place in this room.

I think we must respect the Americans for their capacity for doing quickly that which has to be done. Scarcely two years after the dedication of the new Yale Medical Library their first catalogue was ready. It is a short-title catalogue, a volume of about 200 pages. For an inveterate bookish man the reading of a catalogue is similar to the pleasure a musician derives from reading a score, but a short-title list must indeed be interesting if it is to arouse enthusiasm. The Cushing Collection list falls in this category. It is very well planned. To avoid long serial numbers the Americans have for several years adopted the system of numbering afresh the items under each letter of the alphabet. Each number is preceded by this letter. The quotations are therefore very short: one letter and not more than three figures. After the author's name in this list, the dates of birth and death are quoted. The exact title, printing date, and size of the books are usually followed by an abbreviated reference to the best authority which describes the item in question with a collation — for example, the Surgeon General's Catalogue, the British Museum Catalogue, or a special bibliography. Hardly any title is longer than two lines. I found that this catalogue is very easy to use, especially because of the numerous cross references. One of the usual stumbling blocks in listing early printed books is the names of the authors; this has been surmounted by using vernacular

forms for authors and printers, supplemented by cross references. Finally, as in the case of all such catalogues, I would subscribe to a quotation which Miss Margaret Brinton, the chief cataloguer, gives from the *Medicina statica* of Sanctorius: "What literal faults there may be, the intelligent reader will easily find, and correct."

I think I have not yet done justice to the richness of the really rare and outstanding volumes which Dr. Cushing was able to bring together in this collection. Although only 60 manuscripts are listed, nearly every one is of special interest. After the last war the Austrian monastery libraries were largely broken up, and about ten of the Cushing manuscripts came from such abbey libraries as Admont and Melk. A few of the manuscripts, as well as some of the incunabula, were formerly the property of well-known 15th century physicians such as Ulrich Ellenbog on whose library R. G. Proctor wrote one of his fine essays, and Hieronymus Muenzer of Feldkirch, a biography of whom we owe to E. P. Goldschmidt. One volume of collectanea of early scientific manuscripts is especially attractive. It contains, for example, the famous 13th century treatise of Peregrinus on the magnet, in a hand of the 15th century, bound together with the first printed edition of Euclid (Venice 1482) and two books from Regiomontanus' own press at Nuremberg. This volume came from the library of a John Serlinger, the chronicler of the bishops of Salzburg. I well remember the fine morning when I was looking for Serlinger's tombstone in St. Peter's churchyard in Salzburg. He died in 1511 and was buried behind the apse of the Church of St. Peter, not very far from the tomb of Paracelsus, which I used to visit from time to time when I was at Salzburg.

There are approximately 170 medical and scientific incunabula in the collection, and some are remarkable first editions: the *De medicina* of Celsus of 1478, Brunshwig's well illustrated *Chirurgia* of 1497, the first Galen *Opera* of 1490 in two folio volumes, which we could admire a short time ago in this room [Royal Society of Medicine] when the Wellcome Museum showed some of its treasures, Guy de Chauliac's *Chirurgia* of 1498, the first Herbarius printed by Schoeffer in 1484, the large folio edition of the first Ketham, 1491, certainly the finest early medical book, the *De morbo gallico* of Leonicensus, printed by Aldus in 1497 (the copy of Hartmann Schedel, the author of the famous Nuremberg Chronicle and an M.D. himself), the *Regimen* of Maimonides, Florence, 1481. Another noteworthy book is the *Epitoma in Almagestum Ptolemaei* of Regiomontanus, Venice, 1496. This copy previously belonged to Hevelius, the great Danzig astronomer, and contains his autograph signa-

ture and notes by him. Hevelius' library, his manuscripts and his instruments, were all destroyed by fire in 1676. It is now believed that Hevelius laid the fire himself to rouse the waning interest of the scientific world in his works. Anyhow, I have seen only one or two other books which were in his library before. I conclude the list of incunabula with that great book, the *Regimen sanitatis* of Salerno, the first edition of which was printed about 1480 at a small press at Cologne and of which we know of only six other copies in the whole world; there are two copies of it in the collection. It had long been recognized that Dr. Cushing had his favorites. Robert Boyle is represented by 60 items, Culpeper by about a hundred. Harvey, Servetus, and the literature of the circulation are well represented, as are Fracastor, Samuel Garth, and Jenner; the collection also contains all the early editions of Beaumont's work on the gastric juice, the Plattsburgh 1833 edition and the Boston, Edinburgh, and Burlington reprints, together with the German translation of 1834.

All the original editions of John Caius are represented, as is Canano's well illustrated treatise on the muscles of the upper extremities, printed at Ferrara, about 1541. It is probable that Vesalius met Canano at Ferrara and showed him some of his woodcuts for the *Fabrica*. "Canano must have realized that here was a competitor far beyond his reach," concludes Dr. Cushing; this first treatise was not followed with its continuation of the muscles of the other parts. In 1925 Dr. Cushing and Dr. Streeter published a facsimile edition of this extremely rare Ferrara book. Other predecessors of Vesalius are well represented, as for instance all the original editions of Berengario da Carpi, well printed and beautifully illustrated anatomical works published about 1520 at Bologna. Besides the first edition of Galen's works which I have mentioned, there is a fine and long set of early 16th century editions of the single treatises of Galen. Dr. Cushing was especially enamoured of the charming translations by Jean Canappe and never failed to ask for them. Canappe translated Galen, and also a part of the *Tabulae* of Vesalius which was published at Lyons in 1542 by Estienne Dolet, who died a martyr. Besides being a printer, Dolet was also a poet and, of course, the poems are to be found in the collection, too. I should also say something about the Paré items. Paré's original small octavo editions in French may rightly be numbered among the rarest of the 16th century medical books. There are more than a dozen of them in the library and Janet Doe who wrote the Paré bibliography acknowledges that the nucleus of her descriptions is based on the "splendid Parésian Library" of Dr. Cushing.

About 1930 Dr. Cushing started to add the classics of science to his

medical books. We find not only the first edition of the revolutionary work of Copernicus printed in 1543, the same year in which the *Fabrica* of Vesalius was published, but the much rarer *Narratio prima*, a small pamphlet of 36 pages in which his fervent disciple Rheticus gave the news to the world three years before Copernicus' well documented folio was published. This Danzig 1540 edition, the first announcement of the Copernican Theory, was believed to be 'un livre introuvable.' I brought a copy of it from Munich — and a few months later Mr. Goldschmidt, when he returned from the sale of the books of Count Dietrichstein at Luzerne, brought with him another. But I have heard of no other copy, before or since. In addition to Copernicus, Tycho Brahe, Galilei, Kepler, Giordano Bruno, Cardanus are well represented with their most important first editions, all of them desirable and rare books. Of the later centuries I mention only a few outstanding books, as, for example, the first edition of Linnaeus' *Systema naturae*, Leyden, 1735, in folio. There are only about a dozen copies known of this classic which was printed at the expense of a few Dutch admirers of the young genius. Two copies of it were sent at once to Sir Hans Sloane, one for himself and the other for the Royal Society's library, to direct attention to this great work. Both copies have survived with the letter which was sent with them. One would not think that such a precious volume would be sold for a hundred francs at a small bouquinist's in Paris. I was not lucky enough to find it there. I saw it first in the backroom of a tiny bookshop here; its owner knew very well the importance and value of it. He did not even want to sell it, which was a very uncommon occurrence in those days. Other well-known but very rare books are the four-page pamphlet in Latin which Oersted sent out from Copenhagen early in 1820 to the scientists of Europe; Mendel's Law, first published in 1866 in the transactions of a Czech natural history society; and Hutton's *Theory of the earth*, 1795. For this work Dr. Cushing gave a nearly unlimited bid after we had drawn his attention to a copy at Sotheby's; it then fetched the unheard-of price of 56 pounds. Quaritch's were good enough to consult their old slips, and found that many, many years before they had sold a copy of these two volumes for 30 shillings. A year later, in 1937, another copy was offered at Sotheby's which fetched 96 pounds. No other copy has been offered since.

Dr. Cushing was also ready to go in for the important scientific work of our own days. For years I tried to bring together as many as possible of the 200-odd papers of Einstein. This special collection is now one of the

most complete in existence and in 1937 Dr. Cushing kindly accepted the dedication of a short-title list which was printed in a hundred copies.

I do not think Dr. Cushing had that proverbial collector's luck that, for example, Dr. Fulton certainly has. I remember the day when Thomas Browne's sale catalogue, of which only very few copies are known, turned up at Hodgson's. Dr. Fulton arrived hardly an hour before the sale and we could get it for him. And I have been told how Dr. Fulton during the war arrived on the very day when a scientist's library changed hands so that he could pick out the outstanding volume of this collection: Rudolph Camerarius' *Epistola de sexu plantarum*, in which the first experimental proof is given that viable seeds cannot be formed without the cooperation of the pollen. The importance of this treatise, which was printed in 1694 at the small university town of Tübingen, is matched only by its rarity. I have never seen a copy of it. Perhaps I, too, once found something which pleased Dr. Cushing; I do not remember what it was, but I remember his saying he would in exchange, if I wanted it, take out my brain, dust it, and replace it again.

In February 1936 I was in Paris to attend the sale of books coming from the libraries of Antoine and Bernard de Jussieu and some younger members of that famous family of botanists. The sale was not very exciting; at the end about 30 lots were sold, all in baskets, each for a hundred francs. These lots were not described in the catalogue, nor were they on view before the sale. I bought one or two of these lots and back in London I saw that they contained the very interesting scientific apparatus of Hippolyte Fizeau (1819-1896), who was a relation of the Jussieus. Fizeau determined the speed of the propagation of light and was one of the great French scientists of the middle of the 19th century. I went straight back to Paris and hunted among the bouquinists for the contents of these baskets to form a collection of them; they will now be found in the Cushing Catalogue under "Fizeau Papers."

To conclude my enumeration I mention the Galvani-Aldini special collection on animal electricity. The combined books of Dr. Cushing and Dr. Fulton on the subject form as complete a collection as possible. Both collectors became so interested in the problem which ultimately led to the discovery of the electric cell by Volta that we owe to their combined pens a remarkable essay on the complex situation, together with a sterling bibliography. The four *Reports of the Historical Library* so far published prove that this tradition — to make the old masters speak again and to

create a center of research around the old books — has been well carried on. The range of research, exhibitions, and of historical studies is very wide. Since 1942 Dr. Arturo Castiglioni, the distinguished historian of medicine, has taken a prominent part in the arrangement of the life of the school and has conducted regular series of lectures there. Of exhibitions I mention those on medical Americana, on anatomical illustration, on herbals, on Renaissance medicine, on aviation medicine, on poetry and travels by physicians. It would be beyond the scope of this paper to enumerate all the lectures and other activities. The index of the printed papers on bibliography and the history of medicine which have emanated from the Historical Library had very nearly 50 titles at the end of the fourth year of the Library's existence. In conclusion, and to show the vigorous spirit with which Dr. Cushing's friends endeavor to keep alive the great endowment which he made to Yale, let me quote again from the *Report* 1944:

The Library has inaugurated a more energetic program with regard to exhibits in the belief that their educational value is great, especially if there is a more rapid change of displays than was true during the first two years. At the time of the fall of Sicily and our entry into Salerno, a large exhibit was arranged on "Contributions of Italy to Medicine and Science." This was followed by the Vesalian exhibit, and after that a series of educational displays particularly for young medical officers: the first on head injuries, the second on the Red Cross and the neutrality of the war-time medical services; then penicillin, and finally the present exhibit on plastic surgery. This is to be followed by war-time orthopedics and later by an exhibit on peripheral nerve surgery, the foremost neurosurgical problem of the present war.

HARVEY CUSHING AND HIS BOOKS

GEOFFREY JEFFERSON*

ONE needs to go no further than Harvey Cushing's own writings to learn how he came to collect books. He has told here and there how his Vesalius collection began; we know how finely the *Bio-bibliography* ended it. But of his library at large and how it grew, much can be deduced from these passages taken from "A Doctor and his books," an example of Cushing's wit at its best:

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Society of Medicine London, January, 1945 on Dr. Weil's paper, "The formation of the Harvey Cushing collection."

Vassaeus's book I did not particularly desire, as it is in bad Latin which I have small patience and less ability to read. It stood on my shelves for years alongside Lipinska's *Histoire des Femmes Médecins* — a bobbed-haired production of modern times. The inevitable happened. Ere long a small and inoffensive volume was the consequence of the liaison — a mewling octavo in pale calf — the *Anatomy* of Loys Vassaeus in French. Aware of my responsibility, I segregated it with its Mother on a back upper shelf till it could be weaned. And now comes the waste of time.

A friend has been staying with me, whose metabolism and pulse-rate in the presence of other people's books run high. He grows exophthalmic with hyperbiblioisism. So, while you endeavour to concentrate upon your proper tasks, he exclaims, "Where did you get this Dolet imprint?" holding up a vaguely remembered calf of a book in his hand. "Oh, I don't remember; someone may have left it at the door, but I always thought it came into being on the bottom shelf of that case in the corner." "Are you aware," says he, ignoring my trivialities, "that Christie knew of only one other copy?" You begin to take interest. "Perhaps someone gave it to me for Christmas. But what about Dolet? Let me see the book; it's only just grown up."

And there it was sure enough — *A Lyon. Chés Estienne Dolet. 1542. Avec priuilege pour dix ans*. And, what is more, with two other Dolet imprints, *Des Tumeurs* and Galen's *De la Raison de curer par Evacuation de Sang*, newly translated from the Latin into French — a veritable triplet.

This is enough; you are lost. The attack is on. Influenza in its abruptness is nothing to it, and days elapse before you are fit to resume your legitimate job. Your fever leads you first to Richard Copley Christie's life of the unfortunate Étienne Dolet, the young Renaissance scholar and printer, contemporary and one-time friend of such as Erasmus and Rabelais, who lived in Lyons when Lyons was a place to live in, and who in the Place Maubert in Paris for his religious opinions, when only thirty-seven, suffered the fate of Servetus and was burned with his books. He had printed possibly eighty pamphlets, which are among the *rare rarissimes* of the collector. In one of them, when translating Plato's Dialogues and quoting Socrates on the immortality of the soul, he had added three words which left the meaning dubious; for this he went to the stake.

And this leaves you anxious to know about Christie, whose chapters on Rabelais, on Padua, on the trial and the scene at the Place Maubert, give one a vivid picture of the time when printers issued books at the risk of their lives, — Christie who worked eight years on his Dolet and hints in his preface at a long and continuing illness, — but after all there is this address to write and much time has been lost. Beware the book.

But books nonetheless came until there were so many that he said of them that they were "there on my shelves, if not in my head. . . ." Did Dr. Cushing read his books? There is amongst bibliophiles a gentleman's agreement not to ask that question. Of course he did not read all of them, none of us do, or can, or ever have done so. Marcus Antoninus as long ago

as A.D. 121 advised his readers to cherish no illusions of that kind. We read selectively, we pursue what we require, we read what attracts us and often with a queer sort of taxis that leads us to what we want. That is our chief reading but, besides, we can often be fascinated by the form, shape, color, and feel of books in which we don't even read 50 lines. A. J. Nock is right when he holds that a generous education, if it be understood that we mean one of a tertiary sort, can be gained from the backs of books. Dr. Johnson refused to believe that anybody had ever read a book right through, and Oliver Wendell Holmes was of much that opinion. He had had, he said, "much greater profit from the books that I read *in* than from books that I read *through*."

The most accurate method of knowing about a library is that, as it were, of accountancy where the provenance of each volume is known, its date of purchase, and (an unending source of enjoyment) the amount paid for it. That is the surest way, but the more illuminating is to enquire why the books were bought. As an unrepentant book buyer it would, I know well, tax my memory, my powers of invention maybe, had I to give reasons for all my purchases. I have no doubt that anyone looking over another's books must frequently exclaim: "Good gracious, what on earth did he buy that for! I had no idea he had any interest either in that subject or that author." And maybe there had been none; the book just made its way into the company. But this is a universal frailty to which all book lovers are subject. How often do we resolve that we shall limit our purchases to this subject or that, to such and such a period, or to a few writers in whom we are particularly interested. And how vainly!

A more interesting study is to see how much use a collector who is a writer makes of his books, to discover who were his favorites, and especially what trends of thought, what climates of opinion, made particular appeal. I have made a survey of a number of Harvey Cushing's papers in the collected addresses that form the *Consecratio Medici* (1928) and *The Medical Career* (1940). The number of writers quoted is very large: in "Realignments in Greater Medicine" there are 64; in "From Tallow Dip to Television" 31 different people are mentioned; in another, of 23 allusions 19 are to doctors.

An interesting fact emerges that the great majority of the names quoted were of doctors, savants, or scientists; a few, a very few, were of purely literary men. There is, to be sure, nothing deleterious in that; it shows the strict way in which our author confined himself to the principal aim of his life — the furtherance to the utmost of his powers of such scientific direc-

tion as he could give. Cushing was scientist, scholar, and collector. The dominant note is the plea for the wider view, the widest possible view, of medicine and the dangers of narrow specialization. Coming as they did from a super-specialist, these warnings carry extra weight and they must have been born of a conviction that it was right to do as he had done and turn the full fury of his talents, of his genius, if you will, to the narrower end. But he recognized his particular duty to give back to general medicine, to general culture, what he could, and on no account allow himself to be cut off from the parent body. I remember how feelingly he quoted Lanfranc — “No one can be a good physician who has no idea of surgical operations, and a surgeon is nothing if ignorant of medicine.” Thus it is that Cushing speaks most lovingly not of his forbears and precursors in neurology but of the great general pioneers, especially those in America like Nathan Smith and Daniel Drake who founded medical education with wisdom and devotion — great doctors, great general practitioners of surgery and of medicine. To the end that this homage might be paid, many volumes found their way onto his shelves, many old journals were ransacked. This knowledge of the medical history of New England and the Western Reserve, the two spheres of his own doctor ancestry, made the hard core of Harvey Cushing’s historical knowledge. It became part of him, fused with the special knowledge that he himself so brilliantly acquired, and went out again in his many addresses. He was, as everyone knows, in great demand as a speaker at graduation ceremonies, at commemorations, and the like.

Harvey Cushing’s interest in letters other than medical, in the *litterae humaniores*, was rather that of an appreciative man who had not yet got around to them in the thorough way that he felt they needed. Nor, we may well conjecture, would he ever have done so. One of the chief advantages of living a long time is the opportunity that it brings of filling gaps in knowledge. A good example in our own time is Sir Harold Stiles who retired from the chair of surgery at Edinburgh at 62 to devote the next 20 years of his life to what he had missed — geology, archeology, architecture, ornithology, botany and now, conchology. The advantages are amply demonstrated in the Pollock-Holmes letters where are shown the pleasures of the eighth and ninth decades in catching up on the reading of things that one has always meant to master. It seems that Cushing would have gone not into general literature but into the history of science, for certainly he had made more than a beginning in collecting the source books of chemistry and physics. For poetry he had not, I think, a great ear. Nor

need that surprise us in one who most certainly had the artist's eye, most unusual skill as a draughtsman, and no little as a colorist. Few artists are polyvalent for arts other than their own. A striking contrast can be drawn between Harvey Cushing and William Osler in this way; it is one worth making because it helps, I believe, our appreciation of both men's qualities, great but different.

Osler's writings are bespattered as much as Cushing's with the names of famous men, but by and large they are mainly classical names in the temple of literature. Thus of the 28 quotations, some long, that form the mottoes of *Aequanimitas*, only four are from medical men. They have been picked from the Bible, Shakespeare, Milton, Plato, Shelley, and of course, Sir Thomas Browne, whom no one has ever claimed as much of a scientist.

It was said of Osler after his address to the Classical Association that in him the scientist and the literary humanist were more perfectly blended than in anybody else. And if we mean by that the doctor with a passion for noble thoughts, nobly expressed, a passion for those who sought after truth (even though we know it to be an abstraction), a passion for old paper, old bindings, old sources, old letters, and old manuscripts, then William Osler was the supreme example, the most vocal and most gracious of them all. We can say of him what Dr. Cheever said of O. W. Holmes "He cuddled old books and hugged them close." Holmes himself confessed that he loved "old stories from black-letter volumes and yellow manuscripts, and new projects out of hot brains not yet imbedded in the snows of age." Holmes, Osler, and Cushing were alike in their love of the old and of the "hot aortic flood of throbbing human life." Osler's and Cushing's greater medical abilities and energies brought them more opportunity and wider-spread rewards. Both knew the value of history, no less for science than for letters. "Those who cannot remember the past," Santayana reminds us, "are condemned to repeat it."

We can estimate again the different literary tastes of Osler and Cushing, if we consider the two men to whose books each in his own way was most devoted, Sir Thomas Browne and Vesalius. It is impossible for anyone with a taste and an ear for language not to fall under the spell of Browne, not to be fascinated by the quantum of his Latinized English, not to be deeply impressed by the power of his thought, the virility of his prose, by the ingenuity of his propositions, by the subtlety of his evasions. Now, it is unlikely that anyone will ever read Vesalius with the same pleasure. Although there is enthralling interest in what he has to say, little fascination is to be found in the manner of it; but it is not for that that one reads

Vesalius. Far be it from me to derogate Cushing in saying this, but to point a difference in purpose. Cushing may well have felt as a personal statement what he quotes from Gabriel Naudé: "I have addressed myself to the Muses without being too much enamoured of them." Cushing liked best the history of facts

Pure crude facts [as Browning said]
Secreted from man's life when hearts beat hard
And brains, high blooded, ticked two centuries since.

One sees this in his passion for the correct attribution of important technical instruments and discoveries to their begetters — thus it is always Leeuwenhoek's microscope, Floyer's pulse watch, Abbé's lenses, Wunderlich's thermometer, Laennec's stethoscope, Perkin's aniline dyes, Helmholtz's ophthalmoscope, and so forth. These reminiscences of inventions can be very important to young people, whilst even the old will profit by the reminder. I hope that none will deny that facts can be handled in an artistic way and still be facts, for there is no denying that Cushing was a great artist. This is plain in a graphic sense, too. That he was as skilful with his pencil as with his pen, the note-book recently reproduced so perfectly by John Fulton shows (*A Visit to Le Puy-en-Velay*).

It would be against the weight of the evidence, not all of which has yet been presented, if the foregoing were found to amount to a judgment for Osler against Harvey Cushing. No two men have identical tastes, no two will form identical libraries. Certain sections of Cushing's library were undoubtedly added to fill vacancies in the shelves of the great library which was to be the ultimate destination of his own. As Underwood has said, the collection is particularly rich in old anatomical and surgical texts. Other sections were no more than leaders or tokens to stimulate later comers to complete them. The great Klebs collection with its incunabula and John Fulton's famous 16th century books are destined for the same Yale library. Look at it how you will, you must yet assent that the library which Cushing collected was one of the three or four most important that any medical man has ever brought together. Its 7696 items made roughly the same total as Osler's; they had been assiduously acquired over 40 years of his life. It contains many great treasures. Let the small collector ruefully remember that the cognoscenti do not believe that a library is important unless it contains old manuscripts and incunabula (this is of course the antiquarians' view and a narrow one). There are 60 early manuscripts in the Cushing collection, some from the old monas-

teries in Austria. In the admirably clear catalogue of Cushing's library (compiled chiefly by Margaret Brinton and Henrietta Perkins with the help of Dr. Fulton, Dr. Francis, and Miss Stanton), there are also 168 incunabula, with 7468 general works. This does not include his modern medical library which he gave away to his pupils and friends.

The dealers from whom Harvey Cushing acquired his books, themselves often scholarly men with a deep knowledge of their craft, can tell how they came to respect his erudition. Few of us, I imagine, are heroes to our book-sellers — how often must they wag their beards at our follies and our ignorance. To be a hero to them is to tread the bookish heights indeed! That Harvey Cushing was one such is a fact the meaning of which should not escape us.

The authors most fully represented in the Cushing library were: Vesalius 51 items, with all of those pirates and authors who used Calcar's plates, 43 Parés, 16 Paracelsus, 60 Osler items, 42 Weir Mitchells, 34 of Linnaeus, 9 of John Locke, 17 of Leonardo da Vinci, 16 of Robert Koch, 11 Keplers, 30 Jenners, 18 titles of John Hunter's writings, 20 of O. W. Holmes, 23 Hippocratic volumes, 42 of William Harvey, 17 of Haller, 24 of Samuel Garth, 61 Galens, 110 Culpepers, 18 Sir Thomas Browne, 60 Robert Boyles, 14 Boerhaave, 15 Claude Bernards. Many very important groups are smaller only because the possible titles are few. "There on my shelves" was indeed an imposing, a stimulating, gallery of savants from Humphry Davy to the Curies, from Luigi Galvani to Faraday and on to Clerk Maxwell, from Roger Bacon to Benjamin Franklin, from Galileo to Albert Einstein, from Soemmerring to Sherrington.

The total effect is, then, that of a great library. One last word is due to the Vesalian collection with its superb run of the *Fabrica*, the *Tabulae sex*, the *Paraphrase of Rhazes* and the *Chima-Root Epistle*. In the "Apologia" prefaced to this fine book Cushing tells how the collection began and proceeded. It bears the imprint of the true bibliophile and of true scholarship; it will be accorded a manumission by all his fellows in spirit. It is in fact a greater task accomplished than any by Osler or Welch. Here Cushing has most modestly and frankly admitted his difficulties, most of which he had overcome. It is probable that the *Bio-bibliography* gained from the assistance of the scholars in mediaeval Latin who completed it posthumously and took it through the press. Few can honestly condescend to Cushing. He made no pretences and the historical world owes him a debt which it will certainly gladly repay in the years to come.

It calls for no great insight for anyone to understand how great a delight Harvey Cushing had in his books. That it prevented him from going on the ordinary man's holiday to the New England Coast, except under the impossible condition that he took his library with him, was to the family a defect, almost a default. But "hyper-biblioism" has its compensations. It added a zest to his visits abroad when a duty-call at a Clinic could be offset by a browse in the city's book-shops, a possibly envious view of the treasures of a famous library that put ideas into his head. Above all, he enjoyed throughout his life, but increasingly as he grew older, the privileges of that substitute for bridge as a social ice-breaker, the freemasonry of the true bibliophile. He had thence a passport to happiness and, as it turned out, to immortality, for it has been given to few to have a library rotunda named for them. This would not be his only claim to the respect of future ages; though the details of his scientific achievements will in time be forgotten, for this is the fate of all of us, yet his name will abide. It abides more surely in stone.