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# The Operation and Services of the Library

## THE LIBRARY IN OPERATION

WHILE Billings was gathering books, journals, reports, dissertations, and other literature, the Library had to be managed, publications had to be registered, classified, cataloged, and shelved, readers had to be assisted, and Congress had to be approached annually for funds.

For the first few years the shelves in Ford's were probably wood, constantly extended as Billings acquired more and more volumes. In 1871, around the time the decision was made to develop a national library, Billings began to order iron stacks. Eventually the only space for expansion was upward, toward the high ceiling. A second level of stacks was erected atop the stacks against the walls, with an iron balcony reached by an iron stairway allowing access to the upper level. Finally books had to be double shelved. A tall metal bookcase with glass doors for display and protection of rare books and incunabula was placed against the front wall between the windows.

In the 1860's the clientele of the Library was exclusively military. In the seventies, when it was opened to the entire medical profession, civilians gradually outnumbered medical officers.<sup>4</sup> A visualization of the interior of the Library and the number of readers may be obtained from the furnishings in 1887: 51 chairs, 10 desks, 9 tables, 9 stools, 8 spittoons, 7 book and file cases, 5 ladders, 2 library tables, 2 manuscript cabinets, 2 water coolers, 1 case of book drawers, 1 card case, 1 negative case, 1 map chest, 1 umbrella stand, 1 marble top table, 1 washstand, 1 wash bowl and pitcher, and 1 clock.<sup>5</sup> Electric fans and air-conditioning were in the future, and during the hot Washington summers the only relief came from open windows and awnings.

Billings' office was in Riggs. Here publications were received, unpacked, and examined by clerks to make certain that no pages or plates were missing. The short title, author's name, size, date and place of publication were written in the Register.<sup>6</sup> The books were classified according to subject, as anatomy, surgery, and so on. The registration number and classification were written on a book plate pasted inside the front cover. They were then sent to Ford's and shelved.

In 1883 on being appointed head of the newly created Museum and Library

Division, Billings moved his office to a room in the house attached to Ford's. His office had a rug on the floor and awnings on the windows, contained 2 sofas, 2 desks, 2 tables, 1 small table, 12 chairs, 1 stool, 3 revolving book towers, 1 cabinet for engravings, 1 cabinet for letters, 17 book and file cases, 1 card case, 1 map holder, 1 fireproof safe, 1 typewriter, 2 clocks, 1 drop light, 2 mirrors, 1 wardrobe, 1 water cooler, 1 washstand, 2 marble top tables, 1 wash bowl and pitcher, and 2 spittoons.

A newspaper reporter who interviewed Billings in 1883 described his office thus: "At desks on each side of the librarian were two clerks, and in the opposite corner was Dr. Robert Fletcher, a colaborer with Dr. Billings in library work. Little heaps of pamphlets, periodicals and manuscripts covered the desks, while here and there were piles of books which were at intervals removed by messengers and their places supplied by others."

The earliest arrangement of books on the shelves is not known. Presumably it was the same as in the catalog of 1865, and later of 1868; that is, there were about 10 classes, and in each class books were arranged alphabetically by author. From about 1871 to the late seventies books were classified and arranged as were the medical publications in the Library of Congress. Billings then developed a classification based on that of the Royal College of Physicians, London. Within each class books were shelved alphabetically by author.

Unbound journals were shelved according to size, as folio and quarto, in order to use all available space. Within each size they were arranged alphabetically. Bound volumes of journals were arranged by country, then alphabetically within each country.<sup>9</sup>

Unbound pamphlets were first arranged in one alphabet in a series of boxes ("Woodruff's Patent File Boxes"). Because of the constant insertion of incoming pamphlets and of new boxes at various points in the series, this system took too much time. It was stopped, and thereafter incoming pamphlets were laid in a box until the box was full, the box was replaced by an empty box, the pamphlets of the full box were alphabetized, and the box placed on the shelf. Each box was numbered, and the number was placed beside the title of each pamphlet in the catalog. Volumes of bound pamphlets were shelved chronologically.

Some of the early binding of pamphlets, journals, and reports was done at the Government Printing Office and some by private bookbinders. <sup>10</sup> In 1872 Billings decided to try a variety of bindings and adopt one for the Library. He sent 150 volumes to Charles Sutherland, medical purveyor, New York, and asked him to have them bound, most in half turkey dark red, some in full calf, a few in half calf. "The style of binding desired is plain, neat, and strong, without fancy gilt tooling, edges of books speckled," he wrote, "I send this as an experimental lot to learn about styles and prices." <sup>11</sup> Billings chose half turkey, and some of the volumes of that time still bear that binding somewhat the worse for wear. <sup>12</sup>

Billings continued to send journals, pamphlets, and books in need of repair

to the Government Printing Office and to private firms until laws were passed requiring that all Federal agencies have their publications bound at the printing office. Unfortunately the latter did not have sufficient employees and storage space to accept, bind, and return publications rapidly. Volumes from the Library sat at the GPO for 6 months or longer before being returned. In Billings' opinion the most unsatisfactory aspect of library operations was the unavailability of works waiting to be bound. <sup>13</sup> He would have preferred that the organization control its own binding, but that did not come to pass for many years.

Billings had two immediate assistants, Edward Shaw, who was with him from 1867 onward, and Andrew Bischoff up to 1880, succeeded by Frederick W. Stone. Shaw, who was Billings' secretary much of the time, held a bachelor's degree from Yale and was the only college graduate in the Library, other than Billings. <sup>14</sup>

The Library was presided over by Acting Assistant Surgeon Thomas Washington Wise. Wise had begun to work for the Medical Department as a nurse and clerk at Armory Square Hospital in Washington when he was 16 years old during the Civil War. He studied medicine at Georgetown and received his M.D. degree after the war. He practiced in Kentucky for a few years then returned to Washington to work under contract for the department from July 1, 1874 onward. Officially he was to assist in the preparation of the Medical and Surgical History of the War. Billings construed this most broadly and placed him in immediate charge of the Library. Apparently he lived an unambitious, placid life for there is no record of his writing articles or engaging in other activities that would have perpetuated his name. But he was appreciated by Library users, one of whom wrote: "His genial and courtly manner made his acquaintance a pleasure, while his prompt and cheerful offers to render aid made a visit to these halls a double pleasure. His kindness and gentleness, mingled with true manliness, impressed themselves upon all who came in contact with him."15

Wise was assisted by clerks (most of the civilian employees of the Library in those days were designated as "clerks"), ex-soldiers who had come to work for the department after the Civil War and been assigned to the Library. They were a rough, uneducated group of men who knew nothing about medicine except what they had picked up from being among Army surgeons, but they were conscientious, and they learned what they needed to know to operate the institution and assist readers. <sup>16</sup>

The Library was open every day except Sunday from 10 a.m. until 3 p.m. <sup>17</sup> Readers included museum workers, compilers of the *Medical and Surgical History*, and military and civilian physicians of Washington. Books were not loaned ordinarily, and some publications (as reference works and current journals) never.

The early readers were aided by the interleaved catalog of 1865, the catalog of 1868, the first large catalog of 1872<sup>18</sup> and the List of American Journals also



The earliest known rules, printed in the 1870's, governing the use of the Library.

issued in 1872. During the latter year the flood of books, reports, theses, and journals forced Billings to start an expandable card catalog for his own, his clerks', and his readers' use. <sup>19</sup> The "cards" were actually rectangles of thick white paper, about  $5 \times 7$  inches in size, lined on one side. <sup>20</sup> On the top line clerks copied the author's name, followed below by the title, collation, size, place of publication, publisher, and date of publication of each book, thesis, and pamphlet. These cards were filed alphabetically in wooden drawers. Cards on anonymous works, periodicals, transactions, and reports were filed in separate drawers.

Billings sent these cards to the printer for use in preparing a three-volume catalog published in 1873–1874. When the cards were returned Billings added subject headings and clerks filed the cards alphabetically by subject. Author cards were made for publications that arrived after the original cards had gone to the printer. The Library now had a printed author catalog, a supplementary card author catalog, and the nucleus of a card subject catalog. <sup>22</sup>

In the 1870's the stacks were open. After a reader had consulted Wise or

#### THE OPERATION AND SERVICES OF THE LIBRARY

the catalog or card index, he selected the publications he wished to peruse and carried them to a table or desk. "The books are all out in full view," remarked a writer, "to be inspected and handled at your pleasure, and there is no envious looking through glass panes or wire screens at what you cannot reach without the aid of an assistant." But readers misshelved books and disorganized the Library's operations in other ways, and slowly Billings lost his patience. He closed the stacks and required readers to apply to Wise or a clerk for publications. "We cannot let visitors rummage the shelves," he told a patron, "because the books must be kept in a certain order, and it wont do to let visitors out of sight. But Dr. Wise will go with you and take down as many books as you like and give you every facility to examine them in the reading room and will then replace them himself. . . . It wont do to make any exceptions to these rules as I have found by sad experience, for what I grant to one I must to all." 24

For the convenience of physicians in Baltimore, Philadelphia, and other places who planned to visit Washington to research in the Library, Wise or the clerks would pull publications from the shelves and have them on a desk for the visitor when he arrived if the visitor would send a list of publications in advance.

Billings' pride in the Library led him to arrange exhibits of its treasures. A visitor in 1878 mentioned one of the displays:<sup>25</sup>

Going into the library of the surgeon-general's office, the other day, to look up some works of reference, we could not help being struck with the thoroughness of the administration of that library, seeing spread out on the table before him, as an example, the whole of the collection of pamphlets, in bound volumes, which belonged to Claude Bernard. Here, then, was the material utilized by that distinguished physiologist to aid him in those researches which have done so much for medicine, and with which the whole medical world is so familiar.

Wise and his assistants serviced the readers promptly and well, so much so that is difficult to find a complaint about the Library in corespondence, editorials, or articles. Readers may have been disappointed occasionally by not finding information they sought but never by lack of cooperation from the staff. The following impression of the Library by a writer may be regarded as typical: "The situation of the library is peculiarly interesting in its associations, the readiness of access to the books, and the politeness of the attendants in charge. . . . The room is warm and comfortable, with every convenience for the visitor who wishes to make extensive notes, and the quiet which pervades shows a due regard for mental abstraction." 26

### APPROPRIATIONS FOR LITERATURE

One of Billings' periodic concerns was the amount of money that the Library would receive from Congress. The first appropriation had been granted in 1867, \$10,000 for the fiscal year ending June 30, 1868. Much of this had been spent to furnish the second floor of Ford's for library use. The next year and thereafter

## A HISTORY OF THE NATIONAL LIBRARY OF MEDICINE

the appropriations had been reduced to a sum just sufficient to purchase publications:

Fiscal Year			Library and
Ending June 30	Library	Museum	Museum combined
1868	10,000	10,000	
1869	2,000	5,000	
1870	2,000	5,000	
1871	3,000	5,000	
1872			7,000
1873			10,000
1874			10,000

Two or three thousand dollars may seem insignificant to a major library in today's economy, but during the 1870's it possessed considerable purchasing power.

In 1874 ripples from the Panic of 1873, one of the worst business depressions in American history, reached the Library. Some congressmen proposed to reduce the Library-museum appropriation from \$10,000 to \$3,000. "This would be barely sufficient to care for the Museum . . . and would entirely stop the increase of the Library, and especially the completing of the files of serials, which is of the greatest importance," Billings noted. He sought help from editors and influential physicians, telling them: 27

I think it is unnecessary to explain to you in detail how desirable it is that this work should not be interrupted. Every year adds to the difficulty of procuring books and journals not of recent date, and if we are ever to have a medical collection in this country which shall approach in completeness and value those formed by European governments, and thus furnish our writers and teachers with the same facilities as those of the Old World, the small appropriation heretofore made should not be at all diminished.

Congress in judging of the advisability of this expenditure must be guided by the expressed opinion of the medical profession as to the utility of the work, hence I venture to express the hope that you will take steps to have such opinion expressed to the Members and Senators of your State in the shape of resolutions by a Medical Society and by personal letters, to the effect that you are interested in the progress and completion of the Museum and Library, and begging that the appropriation be not reduced, but if possible increased.

When the spring of 1874 rolled around Congress appropriated \$10,000. Whether or not it had been influenced by letters, petitions, and memorials from Billings' correspondents is not known, but Billings had learned that this manner of lobbying was effective, and he was to seek aid from the medical profession again and again in the future.

## **EVOLUTION OF THE LOAN SYSTEM**

It is not known when medical officers were first given the privilege of borrowing books and journals from the Surgeon General's office, but within a few years of the Civil War's end the practice was well established. For example, in 1868 Surgeon Andrew K. Smith, Atlanta, Georgia, complained to Billings: "I don't get any medical or chemical journals here. I don't care about the trifling Philadelphia Surgical and Medical Reporter, but the Lancet, Chemical News, American Journal, and the semiannuals I wish exceedingly. Will you please see that they are sent to me." Billings passed this letter to his clerk with a penciled note, "The journals are to be sent to Dr. Smith." 28

The lending of publications to civilian physicians was not begun until the 1870's. Then books could not be borrowed except by written permission of the Surgeon General or Assistant Surgeon General, and certain types of publications (journals, encyclopedias, dictionaries, volumes of plates) were not loaned under any circumstances. Rules were first drawn up by Billings in the spring of 1872 at the urging of Woodward, the custodian of Ford's, and were printed and placed in prominent places in the Library.<sup>29</sup>

Neither the hours of service, 10 a.m. to 3 p.m., nor the rule against borrowing were entirely satisfactory to private physicians. A Washington correspondent of the Boston Medical and Surgical Journal pointed out that most physicians were busiest in their offices during these hours and therefore had little chance of visiting the Library, and that the no-lending rule prevented physicians from studying books at home. "It is true," wrote the correspondent, "that the gentleman in charge, Dr. Billings, is remarkably courteous in relaxing the rules and giving every aid possible under suitable circumstances; but this is a personal favor and . . . one cannot help questioning what would be the effect of a change in the ordinary routine of army duty; perhaps the new librarian would not be so favorably disposed." 30

Furthermore as time passed and the Library became ever larger, more publicized and better known, Billings began to receive requests from physicians living in other towns to borrow publications.<sup>31</sup> This placed him in an awkward position. On one hand he was urging physicians to give journals, books, reports, theses, and other publications to the Library, while on the other hand he was refusing to lend materials to those who needed them. Physicians who lived where there were no or poor medical libraries and who needed information for research or cases had to ride the train to or hire a copyist in Washington. Persons came from Baltimore, Philadelphia, and even as far as Chicago.<sup>32</sup>

By 1874 Billings had relaxed his no-loan policy somewhat. When Richard Dunglison, a teacher, editor, author, and compiler of a standard medical dictionary living in Philadelphia, asked to borrow a medical almanac, Billings told his clerk to let him have it.<sup>33</sup>

It appears that Billings began to develop his loan policy during 1874.<sup>34</sup> Perhaps he was encouraged to lend books because the small American Medical Association library, then housed in Washington, and the Smithsonian Institution both sent books on loan to physicians outside the town.<sup>35</sup> By 1875 Billings was lending books and journals to Horatio C. Wood and William Pepper by sending them to College of Physicians, Philadelphia.<sup>36</sup> Then, responding to a request for books from William W. Keen, Philadelphia, Billings wrote out the

COLLEGE OF PHYSICIANS,
N. E. COR. THURTEENTH AND LOCUST STREETS,

Philadelphia.

Dept 18 1893

TO THE LIBRARIAN OF THE COLLEGE OF PHYSICIANS:

Sire: I desire to obtain from the Library of the Surgeon-General's Office, Washington, for consultation, in accordance with the Rules of the College, the following book:

"Is cancer carrable? The Cancer controvering"
by Saul Kennedy

Public by N. Stort,

London 1891.

Edward & Shumway

LIBRARIAN OF THE SURGBON-GENERAL'S OFFICE, WASHINGTON, D. C.

DEAR SIR: Will you please loan to the College of Physicians of Philadelphia,, for the use of

on Edw. A. Thumway

the above-named book.

Librarian.

Form employed by the College of Physicians, Philadelphia, for interlibrary loans.

## THE OPERATION AND SERVICES OF THE LIBRARY

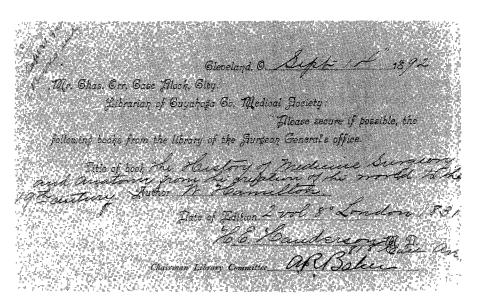
conditions given below and sent them to Robert Bridges, librarian of College of Physicians:<sup>37</sup>

As things now are you are personally responsible for the books. This is not what is desired by this office. We only wish to loan books to a chartered, incorporated and responsible medical society. For this purpose it is desirable that the College should pass a resolution requesting the Surgeon General to loan it books from time to time as may be requested by the librarian, and declaring that it will be responsible for all books so loaned.

The College of Physicians was not willing to assume this responsibility, and for 2 years Billings would not lend books to Philadelphians.<sup>38</sup> Finally the two organizations reached an amicable agreement, and the Library resumed its loan privileges.<sup>39</sup> In the meantime Billings extended the loan system to Boston Medical Library Association, New York Hospital Library, Johns Hopkins University, and other libraries.<sup>40</sup>

By 1880, with experience to guide him, Billings had made the conditions for borrowing more specific. Replying to a request from the College of Pharmacy, New York, he agreed to send volumes if the authorities would assent to the following propositions:<sup>41</sup>

- I. That the College formally authorize some one person to make requests for the books and agrees to be responsible for the safe return of all books sent in accordance with requests made by this office.
- II. That books be sent and returned by express free of expense to this office.



Form used by the Cuyahoga County Medical Society, Cleveland, Ohio, to borrow publications from the Library. Henry Ebenezer Handerson, who requested the book, was a well-known historian of medicine.

III. That all books sent be kept in the Library rooms of the College until their return.

IV. That all books loaned be returned in two weeks unless special permission to retain them longer be obtained from this office.

As a rule this library does not loan unbound numbers of current periodicals.

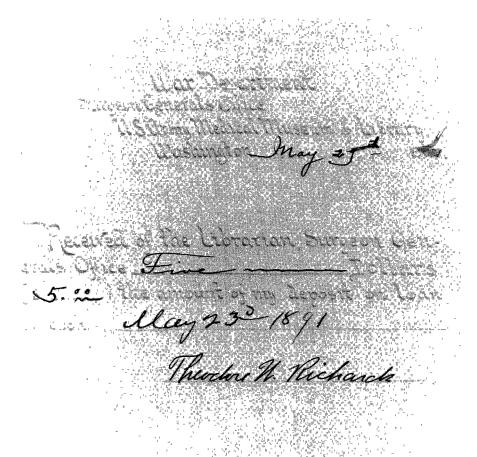
As the 1880's moved along and the Library's liberal loan policy became widely known through editorials, word-of-mouth, and Billings' publications and speeches, <sup>42</sup> the number of requests for loans increased greatly. Some librarians of medical societies received so many requests from members to borrow books from Washington that they had forms printed for the purpose. Occasionally an urgent request, perhaps resulting from an emergency, came by telegraph. <sup>43</sup> Requests even came from Canada and from Europe. <sup>44</sup>

In the meantime Billings had received requests for loans from physicians living in towns where there were no medical, public, or collegiate libraries—and in the 1870's libraries were not nearly as numerous as today. He was also approached by physicians residing in Washington for permission to borrow books. His answer was no. He told A. Ostertag, Okawville, Illinois, who asked to borrow two books, "Regret cannot comply with request as this is a reference not a lending library." And when Jacob J. Delamater, a physician then working for the Pension Office in Washington, wished to borrow a printed introductory lecture written by himself, Billings told him to come and copy it, for "this is exclusively a reference and not a lending library."

Some physicians who wrote were friends of Billings and had donated publications. Billings did not have the heart to refuse their requests, but he asked them not to publicize his loans. ". . . Please do not let anyone know that I have sent them to you," he told Theophilus Parvin of Indianapolis, "as it is contrary to rules to lend books to individuals." Within a few years Billings changed his policy and began to lend books to individuals if the person would deposit a sum of money with the Library sufficient to replace books if they were lost. After the borrower returned the books the Library returned his deposit.

By 1885 the Library's loan policy was so widely known and utilized that borrowers outnumbered visiting readers. "While there are always some physicians reading & making notes in the L. & many come here from a distance for that purpose," reported Billings, "yet the library is most used by physicians in other cities who borrow books on the deposit of a sum of money sufficient to replace them." 48

Billings bent the rules when he felt there was good reason to do so. Asked by John Stockton-Hough, a collector and student of medical incunabula, for a loan of 15th-century printings, Billings assisted him with his studies by sending some, not all, of the Library's holdings. "Am willing to lend you books for yr. purpose wh. I would not lend to anyone else," he wrote Stockton-Hough. This was very liberal: incunabula were not as expensive then as they are today, but it is doubtful that any other library would have sent them beyond its walls.



Form used by the Library in returning deposits to individual borrowers. This borrower was Theodore W. Richards, a noted Harvard chemist who received a Nobel Prize in 1914 for his determinations of atomic weights.

Billings apologized somewhat to Stockton-Hough for not lending every work in the Library, but explained the unreasonableness of some requests:<sup>49</sup>

It is true that the Liby is not as useful to individuals as if I loaned books freely. I have had that urged upon me by men in Arkansas and in Minnesota—one of whom wanted me to send him every book ptd. in Venice prior to the 18th cent., but I tk. my regulations are quite as liberal as it is safe to make them—and more liberal than those of most libraries. . . . Send another list & I will do the best I can for you.

Physicians generally were careful with borrowed books and journals, and conscientious about returning them within the prescribed period of 2 weeks. If they needed the volumes longer they requested additional time and it was

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Form sent by the Library to borrowers of publications.

usually granted. Once in a while a mail handler, expressman, or physician damaged a binding, and then the borrower apologized and paid the cost of repair. Infrequently a patron lost a volume and then Billings adamantly charged him for it. William Osler, a frequent borrower, jokingly sent the following note to Billings after one of the Library's works disappeared somehow from his possession: "Bring a club with you in your next visit and pummel me well. What an aggravating devil I am! Yes do order the book and make me pay double for it, if possible." 50

## REFERENCE SERVICE

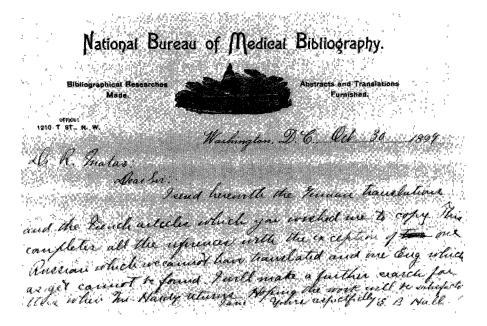
Billings encouraged the use of the Library by researchers. "It is the intention," he told Adams Jewett in 1872, "to make this an universal library of reference." He wrote to another friend, L. A. James, that the Library would be "one place in the country where a physician desirous of consulting files of jour's can be sure of finding what he wants." And as it became known through the American medical profession in the early 1870's that the Surgeon General's was the largest medical library in the country, was open to the public, and was a reference library, Billings began to receive requests for information from physicians residing outside of Washington.

The earliest inquiries of which records survive arrived in 1874. Slowly at first but with increasing frequency in 1875 and '76, Billings received letters asking for references, abstracts, extracts, transcriptions, and translations. In 1882, less than a decade after the initial requests were received, the Library received more than 300 pleas for information, necessitating the sending of a thousand letters.<sup>53</sup>

Physicians sought information on diseases, operations, cases, remedies, and history of medicine; medical writers and editors on biographies, bibliographies, references, and illustrations; architects on planning, construction, and arrangement of hospitals; insurance companies on statistics; lawyers on matters relating to public health; and librarians on names of book sellers, classification, arrangement, and library furnishings. Letters came from every section of the United States, from Canada, France, England, Scotland, Russia, and other countries.<sup>54</sup>

Billings, Thomas Wise, or library clerks answered the requests if the copying or researching could be done within a reasonable length of time, but if a correspondent wanted too much Billings suggested that he come or send someone to the Library or commission a Washingtonian to do the work.<sup>55</sup>

A number of persons served as copyists, abstractors, researchers, and translators for out-of-town patrons. Several of the Library's staff, among them Frederick W. Stone, C. P. Clark, C. J. Myers, and Beruch Israeli, did this in the evenings or on Sundays when they were off duty. Their rates for transcribing and abstracting are not known, but they charged  $2\phi$  per card for copying references from the Library's subject and author index cards. Faraeli provided translations from Russian, German, and other languages at a cost of \$1.50 an hour.



Letter from Ethylwyn B. Hall, one of several persons who carried out library research for physicians living outside the Washington area. The work mentioned in the letter was done for Rudolph Matas of New Orleans.

A few physicians of Washington, perhaps those building their practices and thus having free time, acted as researchers, translators, and copyists, as did some persons who apparently were professional clerks or literary researchers. A Miss Morrill carried out research for Timothy F. Allen of New York City, editor of *Encyclopedia of Pure Materia Medica*. 58 William Lee, a physician and for a time librarian of the American Medical Association library; Kate H. Duvall of 2133 F Street, who offered to copy in her spare time; Dr. R. R. Gurley, who sent out circulars advertising his availability for library jobs; Dr. R. Lorini, who charged \$1 an hour for preparing abstracts and doing other library work; and Dr. Henry Liddell, who translated (except from German and Russian), provided services. 59

Transcribing, abstracting, excerpting, copying, and other services decreased as more and more medical and public libraries came into existence, and knowledge of the Surgeon General's library's willingness to lend publications spread through the medical profession. It was much more satisfactory for physicians to borrow and read original works than to depend on copies, abstracts, or excerpts. And the interlibrary loans may have been just as fast or faster in providing information.

## BILLINGS AND THE LIBRARY DEVELOP EACH OTHER

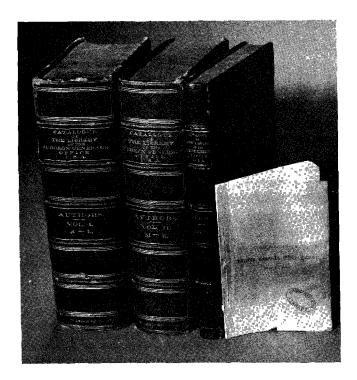
Billings' development of the Library during the early 1870's was all the more remarkable because he could not devote full time to it. From 1870 to 1877 he was in charge of the Disbursing Division and had the responsibility for overseeing the expenditure of funds for the museum, the *Medical and Surgical History*, trusses and artificial limbs for veterans, and other accounts. <sup>60</sup> For a period in 1874 he was acting medical storekeeper. He had to serve on various boards, including those for examining candidates for admission into the Medical Department, for recommending changes in the plans of post hospitals, for examining applicants for the jobs of superintendents of national cemeteries, for examining "Howes Patten Spring Pad Belt Truss," and reporting on a new "field packet case" devised by a medical officer. <sup>61</sup> He was sent to Fort Washington on the Potomac River in 1872 to select the site for a temporary hospital, <sup>62</sup> and in 1873 was told to plan Barnes Hospital at the Soldiers' Home in Washington. <sup>63</sup> In 1875 he edited the 567-page Report on the Hygiene of the United States Army issued by the Surgeon General's office.

Off duty he had all the responsibilities, worries, and problems of a breadwinner and father. He and his wife, Katherine, were the parents of five children born between 1863 and 1872. They owned a home in the Georgetown section of the District of Columbia. His mother and father were living in Ohio, and he corresponded with and visited them. In 1872 he considered resigning from the Army. His reasons are not known, but he may have thought of going into private practice to increase his income for his young family, or he may have been faced with a possible transfer to a frontier post and separation from his family. 64

Billings' vigorous development of the Library brought opportunities for Billings to develop himself. In 1870 he was scarcely known outside of the Medical Department, but his outpouring of letters in 1871, '72 and '73 plus favorable editorials regarding the Library placed his name before the leaders of the profession and led to friendships that were advantageous to Billings and the Library. He was publicizing the Library, and in a way the Library was publicizing him. Invitations to speak, requests for articles, and medical society recognition began to come his way. He was offered chairmanships in the American Medical Association and the American Public Health Association. He was invited into the American Library Association and for a time was an associate editor of *The American Library Journal*, started in 1876.

In March 1875 the trustees of Johns Hopkins University asked Billings and four other physicians to submit plans for the proposed university hospital. Billings knew much about the advantages and disadvantages of hospitals of various designs, having worked in and administered hospitals during the war, planned military hospitals in the 1870's, edited Medical Department circulars on the subject, and investigated marine hospitals of the Treasury Department.

The trustees selected Billings' conception as being the best and passed it



The first printed catalog indicates the small size of the collection in 1864. A comparison with the large three-volume catalog, published in 1873–1874, shows the astronomical growth of the Library in a decade.

to an architect for fulfillment.<sup>65</sup> In June 1876 the trustees requested Billings to be their advisor in medical affairs. Billings thought it over, obtained permission from Surgeon General Barnes to act as a consultant, and on September 18 he accepted.

For years he had been accumulating reports on American and foreign hospitals, <sup>66</sup> until by this time the Library had probably the country's largest collection of literature upon that subject. But now he had reason to inspect the best and most modern European hospitals. Obtaining permission from the Surgeon General, he sailed for Europe in October to visit libraries and book agents, but "mainly to examine hospitals & medical schools." <sup>67</sup> He toured Great Britain, France, Germany, Austria, and Italy, and returned in December. <sup>68</sup> Thenceforth with Billings as one of the guides the construction of Johns Hopkins Hospital proceeded slowly, funds being scarce, until the building opened many years later. <sup>69</sup>

Thus within a decade Billings had raised the Surgeon General's Library to the first rank in the United States and the world, and in doing so had been given and seized the opportunity to raise himself to prominence in his profession.

## Notes

- <sup>1</sup> Correspondence of Billings with firms who furnished the stacks and metal bookcase include letters, Billings to Bartlett, Robins & Co., Mar. 17, 29, Aug. 26, 31, 1871; to F. & A. Schneider, Aug. 31, 1871: NA. Woodward to Billings, July 18, 1872; Bartlett, Robins & Co., to Billings, Aug. 1, 1872; Billings to Bartlett, Robins & Co., Aug. 2, 1872: MS/C/81. Medical Department, vouchers and abstracts of disbursements, Oct. 1875: NLM.
- <sup>2</sup> The iron book stack along the wall may be seen in a photo of the interior of Ford's, taken in 1893, p. 76 of Olszewski, *Restoration of Ford's Theatre*.
- <sup>3</sup> Garrison gave the impression that rare books were not protected until around the turn of the century. The letters cited in footnote 1, above, show that Billings protected books while displaying them at least as early as 1872. A note on the margin of p. 49, vol. 3 of the Catalogue of 1873–74, shows that Incipit Perutilis Tractatus de Pestilentia, Augsburg, ca. 1475, was in the "rare case."
- <sup>4</sup> In 1892 the 52d Congress passed Joint Resolution 8 stating that all government libraries would be open to the public (joint resolution to encourage the establishment and endowment of institutions of learning at the national capital by defining the policy of the government with reference to the use of its literary and scientific collections by students: April 12, 1892). In 1901 Congress reiterated the right of the public to use Federal libraries (31 Stat. 1039, March 3, 1901). This is mentioned here as a matter of interest, for the Surgeon General's Library had been opened to the public in the early 1870's.
- <sup>5</sup> Inventory of property in Museum and Library Division at Army Medical Museum, Tenth Street, June 30, 1887: MS/C/307.
  - <sup>6</sup> These registers are in NLM.
  - <sup>7</sup> Washington Evening Star, May 5, 1883.
- <sup>8</sup> He developed this classification for *Index Medicus*, discussed later.
- <sup>9</sup> Letter, R. Fletcher to C. Fisher, librarian, College of Physicians, Phila., Oct. 18, 1907: MS/ C/116. Fletcher stated that unbound and bound journals had been arranged thus for perhaps 30 years.
- <sup>10</sup> Letter, J. H. Roberts, GPO, to Billings, Dec. 28, 1867: MS/C/81. Medical Department vouchers to W. C. Lycett for binding, 1870: NLM.

- <sup>11</sup> Letter, Billings to Sutherland, Jan. 18, 1872: MS/C/81.
- <sup>12</sup> In a half turkey binding the corners and back are bound in Turkey leather, a kind of oiltawed leather stained a distinctive shade of red.
- <sup>13</sup> Rogers, Selected Papers of John Shaw Billings, pp. 230-231.
- <sup>14</sup> Shaw, B.A. Yale 1847, entered the SGO as a hospital steward, Oct. 22, 1867, and was assigned to Billings. In 1870 he was designated a clerk. Letters, C. H. Crane to Shaw, Oct. 22, 1867; J. Barnes to Secretary of War, May 28, 1878: NA.
- <sup>15</sup> National Med. Rev. 1: 7-8 (1892-3). Wise was born in Washington, Feb. 22, 1846. His salary when he became a contract surgeon in 1874 was \$125 a month plus rations. He died Feb. 17, 1891. Brief sketches of Wise are in History of the Medical Society of the District of Columbia, 1817-1909, p. 279, port. facing p. 88; W. Thornton Parker, Records of the Association of Acting Assistant Surgeons of the United States Army, p. 103. See also letter, Surg. Gen. Barnes to Secretary of War, Feb. 6, 1878: NA.
- <sup>16</sup> Many of these ex-soldiers continued to work in the Library for 30 or 40 years, until they died or old age forced them to retire. The names of some of them will be found later in the text or footnotes. One of them, James W. Allison, was also an early professional baseball player. Allison died Dec. 30, 1911, still employed at the Library.
- <sup>17</sup> This was in the early 1870's. Later, hours were extended to 4 p.m., and then to 4:30.
- <sup>18</sup> The catalog of 1872 contained 454 pages. The first 431 pages comprised an alphabetical list of authors and, where appropriate, of titles. The pages from 433 to 454 listed the subjects. There were about 13,300 volumes. It was compiled and printed in 1871, and published in 1872. After the catalog was placed in the Library, it was kept up to date, to some degree, by writing titles on interleaves. A copy in NLM is inteleaved and contains some corrections and location symbols written on the margins by attendants.
- <sup>19</sup> Archibald Malloch, New York Academy of Medicine, said this about cards: "I cannot tell you when such cards were used for the first time in medical libraries, but at the Surgeon General's Library about 1865, they were employed in the author catalogue, the subject catalogue

being added just before 1880 Both were started at the Boston Medical Library in 1875 At the New York Academy of Medicine Mr John S Brownne made an author card catalogue in 1880, but the subject catalogue was not begun until 1901" (Celebration of the Centennial of the Library of the Medical and Chirurgical Faculty of the State of Maryland, 1830-1930 p 6) I have not seen any evidence that a card catalog existed in the Library in 1865. There were so few books that the preparation and maintenance of a card catalog would have been a waste of time Furthermore the Library had printed catalogs I imagine that Malloch guessed the date 'about 1865

20 Index cards of this period attached to a War Dept, SGO Record and Pension letter, July 9, 1875, and to a letter, Billings to Bridges, Dec 1, 1875, measure 4% by 6%inches MS/ C/81 Billings mentioned the card catalog on p 176 of his chapter "Medical Libraries in the United States," in Public Libraries in the United He stated here that the card catalog was used in printing the 3-volume catalog of 1873-74 The card catalog may have been started earlier, but I have not seen any reference that would place it before 1872

<sup>21</sup> The letter of transmittal in volume 1 of the 1873-74 catalog was dated Aug 15 1873 Volumes 1 and 2 listed authors alphabetically Volume 3 contained a list of anonymous works one of transactions, one of reports, and one of periodicals. The Library at the date of transmittal contained about 25,000 volumes and 15,000 pamphlets (theses, reports, etc.) About 700 of the volumes contained collections of theses, and about 700 other volumes held groups of pamphlets The catalog listed about 50,000 titles, exclusive of cross references. In the transmittal letter and at the beginning of volume 3 are lists of donors of publications In NLM are copies of these catalogs, some volumes of which are interleaved and contain marginal additions and corrections

<sup>22</sup> Printed library catalogs were considered superior to card catalogs at that time Indeed, card catalogs had a long way to go before they would become as standardized and as universal in libraries as they are today. See, for example, the section "Printed or Manuscript," pp 552-560, the answers to questionnaires on the desirability of printing catalogs, pp 567-573, and the list of printed catalogs, pp 576-622, in C A Cutter's chapter, "Library Catalogues," in Public Libraries in the United States of America, their History, Condition, and Management, U S Dept of Interior, Bureau of Education, Part 1, Washington, 1876

<sup>23</sup> W L [William Lee], "Letter from Washington," Boston Med Surg J, 99 709 (1878)

<sup>24</sup> Letter, Billings to Mrs Celeste Willard, Oct 25, 1885 MS/C/81 See also memo by Billings, May 2, 1890 MS/C/81

<sup>25</sup> Boston Med Surg J 99 707-8 (1878)

 Boston Med Surg J 99 709 (1878)
 Letter, Billings to "Dear Doctor," Jan 10, 1874 MS/C/81 This was a form letter that clerks copied and sent to editors and physicians For examples of responses see letters, J C Peters to Billings, no date, Jan 15, 1874 NYPL Editorial, Buffalo Med Surg J Feb , 1874

28 Letter, Smith to Billings, July 29, 1868,

with note by Billings MS/C/81

<sup>29</sup> Letter, Woodward to Billings, April 26, 1872 MS/C/81

 Boston Med Surg J 94 138-142 (1876)
 For example H C Wood, Philadelphia, Sept 26, 1871, asked if the Library had a certain German publication he was "very desirous" to see E Andrews, Chicago, Nov 21, Dec 19, 1871, asked if the Library had reports of European hospitals and if he could send someone to examine reports William Pepper, Philadelphia, Feb 17, 1874, asked if books were sent to reliable persons MS/C/81

32 "Prior to this time [1883] no large collection of books and periodicals was freely available to the doctor [in Chicago] except in university medical schools Dr Bayard Holmes recalled that many were forced to make a journey to Washington to complete a subject under investigation" Thomas N Bonner, Medicine in Chicago 1850-1950, p 82

<sup>33</sup> Letter, Dunglison to Billings, Sept 28, 1874 MS/C/81

34 Letter, William Pepper to Billings, Feb 20, 1874 MS/C/81

35 The AMA librarian reported in 1873 that he made loans to members by mail or express, while the Surgeon General's library was "strictly for reference within its proper precincts" Trans A M A 24 99-109 (1873) As far as I have been able to ascertain the librarian loaned books only to members of the AMA A brief account of this library may be found in M H Moore, "The Library of the American Medical Association,' in M Fishbein, ed, History of the American Medical Association, 1847 to 1947, pp 1071-84 See also W J Wilson, "Early Plans for a National Medical Library," Bull Med Lib Assoc 42 426-34 (1954)

Letter, M Michel, Charleston S C, to Billings, July 22, 1876, "The Smithsonian Institute has occasionally forwarded [books to] me by express & I have returned [them] immediately

', Billings to Michel, July 28 MS/C/81

<sup>36</sup> Letters, Wood to Billings, Mar 16, Mar 21, 1875, Billings to Wood, Mar 18, Pepper to Billings, July 2 MS/C/81

<sup>37</sup> Letters, Billings to W W Keen, Oct 2, 1875, Billings to Bridges, Dec 1, 1875 MS/C/

- <sup>38</sup> Letters, L A Duhring to Billings, Mar 2, 19, 1877, H Allen to Billings, Apr 9, 1877 MS/C/81
- 39 Letter, Billings to H C Wood, Oct 11, 1878, sending books to College of Physicians for Wood NLM
- <sup>40</sup> Letters, Billings to J R Chadwick, librarian, Oct 30, 1876, sending 12 publications, E H Brigham, asst librarian, to Billings, Nov 4, returning volumes, E H Bradford to Billings, Mar 25, 1877, requesting loan of books to N Y Hospital Library, A W Tyler, librarian, Johns Hopkins, Oct 12, 1877, returning 22 volumes MS/C/81 The letter from Tyler shows that the SG library kept a list of accession numbers as well as titles of books it loaned
- <sup>41</sup> Letters, C R Rice to Billings, Dec 20, 1880, Billings to Rice, Dec 22 MS/C/81 Billings forgot to add one rule to the letter, "For most part diss[ertations] not permitted to be taken out", letter, L Hektoen, Chicago, to Billings, May 29, 1889, with Billings' endorsement MS/C/81
- <sup>42</sup> For example, editorial, "Library of the Surgeon General's Office," St. Louis Courier Med 9 43–45 (Jan 1883), Billings' letter stating conditions for loan in Med. News 43 140 (Aug 4, 1883), remarks by Alexander Hutchins, Trans. Med. Soc. State N.Y., 1884, p. 11
- <sup>43</sup> Example telegram, R F Weir to Billings, April 19, 1893, "Kindly send immediately [Gustav] Schneider [Ueber] traumatische gangran inaugural dissertation Freiburg 1892 to New York Hospital librarian important legally" MS/C/81
- <sup>44</sup> Letter, J T W Ross, librarian, Ontario Medical Library Association, Toronto, to Billings, June 29, 1893, sending check for \$100 which Billings made the association deposit as security Letter, librarian, Pathological Anatomical Institute, Basel, Switzerland, to Billings, Sept 22, 1886, requesting four U S and British publications MS/C/81
- <sup>45</sup> Letter, Ostertag to Billings, Sept 1, 1876, with Billings' endorsement MS/C/81
- <sup>46</sup> Letter, Delamater to Billings, Sept 13, 1876, Billings to Delamater, Sept 15, in Billings' abbreviated style which I expanded into the quote MS/C/81
- <sup>47</sup> Letter, Billings to Parvin, Apr 17, 1878 MS/C/81 I have deciphered Billings' scrawl into the quote

- 48 Letter, Billings to L H Petit, Paris, April 8, 1885 MS/C/81
- <sup>49</sup> Letters, Stockton-Hough to Billings, Aug 29, 1889, Billings to Stockton-Hough, Aug 30, 1889 MS/C/81
- <sup>50</sup> Letter, Osler to Billings, Feb 18, 1890, with Billings' endorsement that a replacement copy of the book had been ordered from Trubner, the Library's agent in Germany MS/C/81
- <sup>51</sup> Letter, Billings to Jewett, May 13, 1872 MS/C/81
- <sup>52</sup> Letter, Billings to James, Feb. 19, 1872 MS/C/81
- 53 Annual Report of the Surgeon General, 1882, pp 16-17 Unfortunately, this seems to be the only year for which such statistics were kept
- <sup>54</sup> Examples A Duceau, Académie de Médecine, Paris, asked for information on three American physicians, letter, Duceau to Billings, Dec 6, 1882 The Medical Board of New South Wales, Australia, requested information on the American Eclectic College of Ohio, letter, to Billings, Dec 7, 1882, with answer, Feb 3, 1883 MS/C/81
- ss After the *Index-Catalogue* began to be published, if a physician requested references to a subject covered in a volume of *Index-Catalogue* being readied for publication Billings loaned the correspondent page proofs from the *Index* Examples letters, J O Roe to Billings, July 13, 1888, S T Armstrong to Billings, Feb 19, Mar 3, 1892, L Hektoen to Billings, Mar 7, 1892, J P Tuttle to Billings, Mar 10, 1892 all asking or thanking for proof sheets MS/C/81
- 56 Letters, E A Brigham, Boston, to Billings, April 4, 9, 1878, re an unnamed clerk who charged \$2.75 for copying 75 index cards (higher than the usual charge) under the heading 'Women as physicians", E T Reichert, University of Pennsylvania, to Stone, Sept 30, 1878, requesting translations and Billings to Reichert, Oct 5, 9, explaining that clerks were not medical men and could not read foreign languages, Austin Flint, Jr, to Billings, July 6, 1880, requesting a copy of an article, and July 15, send ing \$6 to Stone for making the copy, Billings to R F Fletcher, Rochester, NY, Sept 27, 1881, and to J B Fuller, Pawtucket, RI, Dec 22, 1881 stating that clerks charged \$2 per 100 cards for copying references, E H Brigham to Billings, Oct 15, 1885, requesting all titles on "iron" be copied at usual rates, with attached note stating that Clark copied 190 cards for \$3.80, W. W. Keen, Phila, to Billings, May 28, 1886, asking for refs on "stumps," with note that 150 had been provided for \$3, Billings to Brigham, Dec

24, 1886, naming Myers as an abstractor  $\,$  MS/  $\,$  C/81

<sup>57</sup> Memo, E B Fullerton to B Israeli, Feb 10, 1893, paying \$4 00 for translating MS/C/81

<sup>58</sup> Letter, Allen to Billings, Nov 19, 1875, presenting a volume of his *Encyclopedia* and thanking Billings for courtesy to Miss Morrill MS/C/81

59 Letter, J J Putnam, Boston, to Billings, May 18, 26, 1876, regarding a literature search by Lee for Putnam on cases of poisoning from medicinal doses, Duvall to Billings, Sept 18, 1883, E H Brigham, Boston, to Billings, Nov 19, 1886, Billings to Brigham, Nov 23, and L A Stimson, New York, to Billings, Dec 13, re Gurley, Billings to E J Beall, Mar 25, 1887, memo on P C Knapp, Boston, Jan 21, Feb 8, 1889, and Brigham to Billings, Feb 8, 1893, regarding Lorini, E B Fullerton, Columbus, Ohio, to Billings, Feb 1, 6, 1893, S Loving to H Liddell, April 10, 1893 sending \$25 for translations, and Liddell to Billings, April 11, 1893 MS/C/81

The Library provided patrons with the names of translators until the 1960's Handcopying of articles ceased after World War I when the museum obtained equipment and personnel to provide photographs and photostats

<sup>60</sup> The monthly accounts, vouchers, and other financial records that Billings kept as disbursing officer, 1870–1877, are in NLM Full title of the Disbursing Division was Library and Disbursing Division

<sup>61</sup> Orders to Billings are in SGO records, NA Copies of some orders are in MS/C/273

<sup>62</sup> Letter, Asst Surg Gen Crane to Billings, July 10, 1872 NA

63 Plans of Barnes Hospital and Billings comments thereon are in War Dept, Surgeon-General's Office, Circular No 8, A Report on the Hygiene of the United States Army, with

Descriptions of Military Posts, edited by Billings, Washington, G P O, 1875, pp liv-lvi This circular was reprinted with introduction by Col Herbert M Hart, N Y, 1974

64 Letter, W Wesley to Billings, June 18, 1872, "I am very much pleased to hear that the resignation does not take place" NLM

65 The plans submitted by Billings and the other physicians were published under the title Hospital Plans Five Essays Relating to the Construction, Organization, & Management of Hospitals, Contributed by their Authors for the use of Johns Hopkins Hospital Baltimore (New York, 1875)

<sup>66</sup> Example letter, Billings to F Flugel, bookseller, April 17, 1875, asking Flugel to procure working drawings of Saint Joseph Hospital, Leipzig Flugel sent them, letter, Flugel to Billings, Feb 23, 1876 NLM

<sup>67</sup> Letter, Billings to L W Schmidt, book-seller, Sept 26, 1876 MS/C/81

68 Garrison, Billings, pp 191-196, reprints portions of Billings' letters from Europe to his wife

<sup>69</sup> Billings was asked on a number of occasions to plan, or give his opinion of the plans for, hospitals In 1877–78 he drew up plans for the central, or administrative, building and east wing of Children's Hospital The buildings were erected under contract See 69 Cong, 2 Sess, Senate Doc 207, Charitable and Reformatory Institutions in the District of Columbia, by George M Kober

In 1878 Billings advised James R Chadwick, librarian of the Boston Medical Library Association, about the ventilating and heating system of the new Boston Medical Library See Joseph E Garland, The Centennial History of the Boston Medical Library, 1875 to 1975, p 40