

**VAIL ELECTRICAL LIBRARY HAS GROWN TO BE THE THIRD LARGEST IN THE UNITED STATES**

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able to indulge without limit, having amassed a considerable fortune from his patents, the most important of which were a "chair" for steam road rails and an electric light invention. Mr. Dering placed unlimited orders with several book publishing concerns for all books, in whatever language written, that were in any way connected with the subjects of

**VAIL LIBRARY BOOK PLATE**



This Seal, which is stamped on every book in the Vail Library, was designed by Mr. Sidney L. Smith, a prominent Boston engraver, and bears the inscription "Vail Library, gift of the American Telephone and Telegraph Company to the Massachusetts Institute of Technology."

electricity or electrical engineering. In addition, he attended many sales himself, and collected in all more than thirty thousand titles. This collection was purchased by Mr. Vail shortly after M. Dering's death in 1911, and was shipped to Boston from London in 1912.

**TOOK FIVE YEARS TO CLASSIFY**

When cataloged upon its arrival in this country, the Library was found to be complete up to the date of Mr. Dering's death. Five years were required to rebind the books, classify them under general titles, catalogue their contents, and make them as usable as any modern library. During this time the work was in charge of Mr. E. W. Chapin, research assistant in the library of the Department of Electrical Engineering. Despite the enormous task of these five years, the Institute authorities decided immediately upon the addition of new books, and endeavored in every way possible to keep the Library complete, adding every important work published since 1911.

**MR. VAIL FINANCES UPKEEP**

For this purpose, as well as for the sorting and binding of the books, Mr. Vail provided liberal sums. It is interesting to note that Technology received these funds under a contract which was the forerunner of the Technology Plan. The first contract was for a period of five years. Although at its termination in 1918, the fund had not yet been used, the donor of the Library generously signed another five year contract.

**OVER 11,000 BOOKS COLLECTED**

As they are bound at present, the original Dering collection consists of approximately ten thousand books and pamphlets. Of the ten thousand books, only six hundred have not yet been catalogued and rebound. Since 1912 more than a thousand books have been added, and the number of new books purchased is increasing every year. One hundred and thirty volumes were added during the quarter ending September 30.

**RARE WORKS INCLUDED**

The library comprises books in many modern languages, as well as early and rare books in Latin, some bound in vellum, and others in beautiful leather bindings. The majority of the volumes are in English, though the French, Italian, Russian, Scandinavian, and German languages are represented. The rarities include such books as Gilbert's "De Magnete," 1600, (first edition); "Tentamentum Theoriae Electricitatis et Magnetismi," 1759; "Philosophia Magnetica," 1820. There is one very old English book bound with a wooden cover.

Among these old works can be found volumes from the pen of such men as Sir Isaac Newton, Sir William Gilbert, Sir Humphrey Davy, Benjamin Franklin, Count of Rumford, and many others. Many of the books by these men are first editions and treasures presented to the Royal Society. An article dealing with these scientific curiosities has already been given to the public.

**CLASSIFIED BY CONTENTS**

The only practical classification of the books in the Library is an objec-

tive one, which divides the collection into three groups: those which pertain to the history of electricity and magnetism, those which deal with the theory of electricity, and those which have to do with its application to industry. There are, however, many books which even this grouping does not cover, books only remotely connected with the science of electricity. By far the greater number of books come under the third of the above heads.

The great variety of the literature in the collection makes a subjective classification altogether out of the question, as a reference to the catalogue will show. Among the several hundred heads under which this register lists the works, some comprise but one or two volumes, while others are followed by some hundreds of titles. The principal of these latter are electrical engineering, electrometallurgy, electrochemistry, aeronautics, railroad engineering, electrotherapeutics, radio-therapeutics, illumination, telegraphy, and electrical transportation.

**E. E. TEXTS NUMEROUS**

Some of the books have, of course, only a historical value, but to the electrician these are, nevertheless, interesting, in that they present the many misconceptions of early electrical experimenters. But such books make up only a small part of the Vail Library, the much larger part of which consists of editions of the last twenty years. All of these, of course, and especially those of the past decade have a genuine value. A great many of such volumes are text books, and it is these which are now finding most use by the students of the department of Electrical Engineering and other students of the Institute.

**PHOTOS ARE INCLUDED**

Not the least interesting part of the collection are about four hundred and fifty photographs, which were a part of the original Dering library. To these other photographs have been added from those previously owned or since purchased by the department of Electrical Engineering. These latter have been appropriately framed and placed on the walls of the Vail Library's present home in room 10-385. They include photographic reproductions from painted portraits of many eminent scientists, such as Franklin, Davy, Faraday, and Lord Kelvin (Sir William Thomson). There are portraits of Thomas A. Edison and Alexander Graham Bell, and autographs of many heads of prominent electrical concerns, including Edmund Weston and George Westinghouse. Then there is a photograph of Mr. Vail, and a painting of Franklin's discovery of atmospheric electricity. Other scenes show Watt discovering the condensation of steam, and a meeting between Edison and Charles P. Steinmetz.

**PERMANENT SHELVES READY**

The equipment and furnishings of the Library are still in part temporary, although it is even now attractive. It is expected that the wooden shelves which now hold its treasures will be replaced early next month by metal-cases of the type now in use in the Central Library and other libraries of the Institute.

**MAGAZINES PROVIDED**

It was the purpose of the founder of the Library that it should serve not only as a storehouse and reference room, but also as a reading room. To this end a part of the funds received by the Institute thru its contract with Mr. Vail have been devoted to providing ample and comfortable accommodations for readers. To this end also, the Vail Library has become a subscriber to thirty periodicals dealing with electricity and kindred subjects. In addition, the Institute itself has subscribed to forty-six other such publications, and has placed these in the Vail Library. Thus there are a total of seventy-six magazines kept in the Library, all of which are at the convenience of students at Technology, and of the general public. Only current issues of these periodicals are, however, kept here. Back numbers are bound, and then placed in the files of the Central Library in the Rotunda, room 10-550.

**BOOKS CAN BE BORROWED**

As in the case of the magazines, both students of the Institute and the general public are privileged to use the books. Students may take out the books as in the other libraries of the Institute. All books may be taken out for a period of two weeks except certain reference books, such as dictionaries of electrical terms. These are given special shelves by themselves, and may only be taken out over night. Persons living in distant localities and wishing to borrow books may do so only with the permission of a Professor of the Department of Electrical Engineering, in which case the Professor is responsible for the book borrowed.

**DEWEY CATALOGUEING USED**

The books are catalogueing according to the Dewey decimal system, which arrangement lists the works of every author separately, and also lists them according to their titles. At present the catalogue contains about sixty thousand cards. None of

the regular "printed" library cards have been used in this catalogue; instead, every card has been type-written. Enough information is placed on each card to enable a reader to determine at a glance whether or not he is interested in the particular volume. As in the Central Library, subject cards are of a different color from author or title cards, this device making it easier to use the catalogue.

Every book of the Vail Library has a special seal stamped on the binding, and bears, on the front inside cover, an artistic bookplate, designed by Mr. Sidney L. Smith, a prominent Boston engraver. This bookplate is herewith reproduced. It is an excellent likeness of the donor of the Library with the inscription, "Vail Library. Gift of the American Telephone and Telegraph Company to the Massachusetts Institute of Technology, 1912."

**MISS BELL IS LIBRARIAN**

Books newly acquired by the Library are not immediately put in the places on the shelves to which their catalogue number assigns them, but are placed together on shelves near the entrance to the room. These shelves are marked "recent accessions." The Library is open from 9.00 until 5.00 daily, excepting Saturday, when it closes at 1.00 o'clock. It is in charge of Miss Dorothy Bell, Librarian, a graduate of the Library School at Simmons. Before coming to Technology, Miss Bell had wide experience as an expert filer, and was librarian of an electrical library maintained in his business office by Professor Jackson, a prominent consulting electrical engineer of Boston, and head of the Institute's department of Electrical Engineering.

The Library is under the administration of the Electrical Research Department, to which the Librarian makes a quarterly report. Final supervision of the Library rests with representatives of the Electrical Department and Professor Lyons, a present chairman of the Institute's Library Committee.

**LIBRARY IS MUCH USED**

By actual count, the average number of people using the Vail Library per hour from November 1 to December 15 was eleven. The greatest number of people using the Library during any one hour of this period was forty-one, almost the room's capacity, which is reading accommodations for forty-four people. At no time during this period was the room open and not in use. The average circulation of books was eleven.

**BOOKS STORED FOR YEARS**

Old issues of THE TECH give interesting facts concerning the difficulties which were met with in taking care of the Library when it was first received by the Institute. There was no available room in the Boylston Street and Trinity Place buildings for the ninety-six immense packing cases containing the books, so these were stored in the Metropolitan warehouse, near the present site of Technology. Here, under the direction of Professor Harold Pender, formerly of the Electrical Engineering Department of Technology, the boxes were unpacked and the books sorted out and placed on shelves.

When the new Technology was built, these scientific treasures were stored in room 3-003, in the basement of building three. For the convenience of students in Course VI, the volumes were gradually moved to room 10-211. Finally, last July, the library took over its present quarters.

Though realizing since 1912 that they were handling a highly valuable addition to the equipment of Technology, it is only recently that the knowledge has come to those in charge of the books that they were handling material which needed only orderly arrangement to make it the third largest and most complete electrical library in the United States.

A list of the titles of books added to the Vail Library during the past month is appended:

**BOXING TEAM WILL MEET PENNSYLVANIA**

(Continued from page 1)

From the information available at present, it is certain that six bouts between men varying in weight from 115 to 175 pounds will be staged. Each bout will consist of three rounds of two minutes each, with a fourth round, also of two minutes, in case either contestant shows enough superiority within the allotted time to warrant his receiving a decision.

It is probable that no member of either team will protest a decision. This seems assured in view of the statement from Captain Addicks that the referees for the evening of January 31, will include "Philadelphia" Jack O'Brien, famous professional ring veteran; Major A. J. Drexel Biddle, amateur boxing enthusiast and "Billy" Recap, sporting editor of the Philadelphia Public Ledger, and a referee well known in Eastern sporting circles. Each of these men will handle two bouts, providing a general air of experience and com-

petency to the amateur entertainment.

Technology's six representatives will be decided upon by a series of elimination bouts to be held immediately after the opening of the Institute on January 5. A probable lineup of the Cardinal and Gray team from the past showing of all the candidates would include the following: 115 lbs., Kreeger; 125 lbs., Captain Addicks; 135 lbs., R. D. Rhoads; 145 lbs., Christianson; 158 lbs., Bradley; with no outstanding choice at present in the 175 pound class.

According to Addicks, the University of Pennsylvania boxers will offer sturdy opposition to the wearers of the padded gloves who will represent Technology. "I expect a close meet," he remarked to THE TECH reporter, "with the result depending on one, or possibly two, bouts. The Red and Blue will probably capture both the 135 and the 175 pound events with little trouble. In the latter class they are represented by "Heine" Bourne, who was at one time amateur champion of Philadelphia at that weight. Their 135 pound man is O. J. Malley, who includes in his record of victories the title of champion of the A. E. F. among men tipping the scales below that figure. From the present dope we should win the 115 and 125 pound bouts unless some unexpected upset occurs. Therefore it now looks as if the outcome of the meet would hinge on the results of the 145 and 158 pound battles."

Although the meet with Pennsylvania is the only one that has been scheduled so far, it is hoped that contests will be arranged with the Navy, Dartmouth and Penn State, as well as informal meets with Harvard and Boston College. At neither of these last two institutions is boxing a recognized sport, and consequently no formal contests can be booked with teams representing them.

**PERIODICALS PRAISE TECHNOLOGY PLAN**

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with about a dozen mills for a total of over \$100,000. The aggregate amount that has been added to the Technology Educational Endowment Fund through corporation contracts of this kind is nearly \$750,000. Most of the textile mills have signed contracts on the basis of a half-cent per spindle per year, but some of the contracts range as high as a cent per spindle per year.

Among the textile mills which have signed these consultation contracts are as follows: William Whitman Co. and affiliated industries; Bemis Bros. Bag Co.; Boot Mills; American Printing Co.; Stafford Mills; Angier Mills; Saco-Lowell Shops; Parks-Cramer Co. and Textile World Journal. Several other large textile corporations are on the list, but the contracts have not as yet been received.

In speaking of the accessibility of the Institute's library and files, etc., this periodical goes on to say:

This is the tangible part of the plan that is likely to make its strongest appeal to manufacturers who are not graduates of the Institute, or who have not leaned heavily upon the Institute as a source of supply for their future department managers and executives. Those who are fully alive to the country's need for men skilled in applied science will find equal appeal in the fact that the plan is primarily designed to secure an endowment fund of \$8,000,000, of which \$3,000,000 is to be provided by an anonymous benefactor, provided the other \$3,000,000 is raised by January 1.

The plan has been referred to ineptly by some as "being the Americanization of a German idea, but we prefer to refer to it as the demonstration of applied science and industry. Germany, nor any other country, has an institution that quite equals the Massachusetts Institute of Technology in equipment, instructing staff and educational system. The need of domestic industry for hundreds of highly trained men who are annually graduated by M. I. T. is steadily increasing. The operating cost annually per student, of which there are over 3,000, is about \$700, whereas the new tuition fee is only \$300, and it is manifestly impractical to charge the students actual cost. The balance must be made up by endowments, largely obtained from individuals and corporations in industries most benefitted. The new plan obtaining the Institute in a consulting capacity affords corporations a practical and legal method of helping to sustain and build up this great educational institution. The response by textile corporations of New England has already been gratifying, but it will be a serious reflection upon the industry if it does not show its appreciation in a more general and substantial manner.



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