of the first edition of Euclid bearing on the title page the seal of the ownership of the Academy of Leonardo da Vinci. A record exists of a discussion by Leonardo of the principles of Euclid, but there is no evidence that he actually used this book. Since the book was near at hand, it is not too unreasonable to believe that Leonard handled this copy, even though the binding itself was added two hundred years after the book was printed.

Another field of science represented is anatomy. As has been said, Andreas Vesalius gave to the world the first work on human anatomy, in Switzerland in 1543. He is called by some the "greatest anatomist," and very early became interested in medicine, a study in which he was not helped by the current Galenic teachings and the labors of Paracelsus. In France human dissection was in such disfavor that he transferred his operations to Italy, where dissection was covertly permitted if not openly countenanced. From the beginning of his studies, the young Fleming looked with extreme disapproval on the teachings of his day, and he consequently started a series of entirely independent investigations based upon his own observations. The results were published to the world in *De Humani Corporis Fabrica,* the first comprehensive and systematic study of human anatomy.

Included in the collection also are treatises in large number on botany, among them one of the earliest and rarest of herbals. Slowly the early herbals changed from mere pictures, more or less beautiful, of the flowers, to the making of fine hand-colored flower prints which were tied in with the newer conception of the use of the plants themselves in the treatment of disease. One of the finest examples of these early herbals is a marvelous copy of Leonard Fuch's book on plants, illuminated with hundreds of hand-colored plates. This copy likewise contains portraits of the author as well as of the illuminators. The flower fuchsia, we remember, derives its name from the author of this work.

Of unusual significance in the history of science is the work of William Gilbert who was, with the doubtful exception of Bacon, the most distinguished scientist living in the reign of Elizabeth. He was the court physician, but Elizabeth finally settled a pension on him which enabled him to devote his time to scientific studies. His work in chemistry is thought to have been important, although most of it has been lost. His research on magnetism (the first of its kind) was of sufficient value, as Hallam states, "to raise a lasting reputation for its author." As usual, at home his ideas were not favorably received, but he seems to have made a lasting impression on the men of the continent. Bacon admired the man but not his theories; and on the other hand, Galileo expressed esteem for the work as well as for the author. Gilbert was the first to discover that the earth was a great magnet; he was apparently the first to give the name "pole" to the magnetic needle, although he seems to have reversed the directions as these are now understood. The terms "electric force," "electric emanations," and "electric attractions" first appeared in his work. Dr. Priestly called him the "Father of Electricity." This first book on electricity was printed in Latin under the title *De Magnete, magneticisque corporibus.* It was not translated into English until 1893, exactly two hundred and ninety-three years after its first publication.

The works of Aristotle have appeared in many editions, yet it is still an unusual occurrence for one to see the very rare first edition, in the original Greek text, printed in the beautiful type designed for the press of Manutius Aldus, while on an adjoining shelf stands the complete English edition, prepared under the editorship of W. D. Ross and published by the Oxford University Press.

In examining these books, one finds the names of many world famous printers and designers: Erhard Ratdolt, for example, whose printer's mark invariably more than hinted at his own skill and artistic merit as printer and designer of books; Manutius Aldus, who was without doubt one of the world's great printers; and Leonardo da Vinci, whose designs were used in the illustrations of some of the books in the De Golyer Collection. We may note, in passing, that in the office of Aldus, placed conspicuously over the door, was this legend: "Whoever thou art, thou art earnestly requested by Aldus to state thy business briefly and to take thy departure promptly. In this way thou mayest be of service even as was Hercules to the weary Atlas, for this is a place of work for all who may enter."

Only a few of the outstanding books in the collection can be mentioned in this short article: Jenner and his first book on smallpox, Pasteur's studies employing some of the same theories, Robert Hooke's *Micrographia*—to add a few invaluable titles along the road of scientific progress.

At the University, however, a course is being planned on the history of science which will use the De Golyer Collection as a basis. It is a very generous act on the part of Mr. De Golyer to offer his books for the use of a steadily growing Graduate College and for our students. The presence of such books available for use by anyone should stimulate further thought and research in the broad and fascinating reaches of science.

# Books

*Bibliography of Linguistic, Ethnographic and Literary Materials.*

By Members of the Summer Institute of Linguistics. Glendale, California, 1951. Twenty cents.

Since 1935, the Summer Institute of Linguistics has sent to the Indian tribes of Mexico, Peru, and the U. S. A. numerous investigators to work on the analysis of the linguistic structure of the languages of these areas. The present bibliography lists the published results of their work, both of a linguistic type (with a few ethnographic and general items) and of a type designed to collaborate with the educational officials of these countries in promoting the intensive efforts which the governments therein have under way to educate the native populations.

The bibliography lists a total of 381 published articles by 113 authors dealing with 40 languages.

*Work of the Institute*

In the summer of 1934, the Summer Institute of Linguistics was founded by Mr. W. Cameron Townsend, its present General Director, and Mr. L. L. Legters with two regular students at Sulphur Springs, Arkansas. Since then, branch institutes have been established in Saskatchewan, Canada, and near Melbourne, Australia. Since 1942, the principal sessions have been held on the campus of, and affiliated with, the University of Oklahoma. In 1951 there was a combined total of 350 students in the three institutions, with a total of approximately 2,500 during the last sixteen years. The courses are given in intensive sessions of from eleven to twelve weeks, concentrating on techniques of descriptive linguistics for hitherto unwritten languages.

Students taking the first summer's work have about fifty class contact hours in general phonetics, learning to analyze and to produce sounds; a like number in phonemics, learning how to reduce languages to writing and studying the system of sounds; similar periods of time for morphology, analyzing how the parts of words are put together; and syntax, for the structure of sentences. A further period of fifty hours contains a miscellaneous assortment of hours in which the linguistic student is given methods for preparing literacy materials, an introduction to lexical and translation problems, a brief series of lectures designed to orient the beginning linguist on anthropological attitudes, and so on.

The final ten days of the course are devoted entirely to work with informants, in which the students try out, usually with some Indian language of Oklahoma, the

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techniques they have been taught, and are guided in this initial study by staff supervisors. Those students who return for a second summer are given advanced training in phonemic and grammatical analysis, with more attention to theoretical problems, and with an attempt to make them more independent of the particular sets of techniques which are emphasized in the beginning courses. L. N. M.

## *Prodigal in Waste*

Agreeing thoroughly with a correspondent from Denison, Texas, the editors of *Forest and Stream,* seventy years ago, introduced his letter with the following comment:

Amenities To Sportsmen In
The Indian Territory,—
Those knights-errant who complain because they cannot over-run grain fields and fenced farms after game without a protest from the owner also bitterly denounce the Indian Nation as a close corporation because hunting cannot be prosecuted without stint, let or hinderance [*sic*] over their Territory. For our own part we will readily champion the reds. We have hunted over their grounds and have been the recipients of their courtesies, just as we have been, and others may be, of the amenities of farmers who are liberal in bestowing privileges over their posted lands, when the privilege is respectfully asked. . . . We dismiss the complaints of those who denounce the Indians as arbitrary, and stand ready to defend the family of Lo as the best conservators of game in the region of game. The Indians destroy to use and utilize. The white man is prodigal in his waste and wanton in his destruction.

*Forrest and Stream and Rod and Gun,* Vol. X, No. 15, May 16, 1878, p. 277.

## *The Complete Book*

An interesting item in the valuable Lester Hargrett Collection in the University Library consists of the typescript, galley and page proofs, and a copy of Mr. Hargrett's book, *Oklahoma Imprints,* 1835–1890, published in 1951 under the auspicies of the Bibliographical Society of America. In 1947 Harvard University Press published Mr. Hargrett's *Bibliography of the Constitutions and Laws of the American Indian.*