

BIBLIOGRAPHY

New Methods Vastly Increase Usefulness of Libraries

Books Otherwise Practically Unobtainable Distributed In Microfilm Form; Reading Machine Now Available

THE NON-PROFIT Bibliofilm Service, which copies research materials on microfilm, is now operating in three Washington libraries, those of the U. S. Department of Agriculture, the Army Medical Library, and the Library of Congress, it has been announced by Cuthbert Lee, newly-appointed Director of the American Documentation Institute.

Scholars and libraries desiring to have printed or manuscript material in these libraries may have this copying done on standard 35-millimeter microfilm. This service costs only a little more than a cent a page. The microfilm is read with a special reading machine which costs less than a typewriter. Copying is also furnished in the form of photoprints, readable with the unaided eye, at about ten cents per page.

Thousands of Services

"Bibliofilm Service began in 1934 and the volume of material copied for scholars has doubled each year," Mr. Lee explained. "Some 2500 scholars have been served with approximately 7000 items, totalling hundreds of thousands of pages. Through the vision of Miss Claribel R. Barnett, Librarian of the United States Department of Agriculture, that library was put in the front rank in its ability to supply this up-to-date service, with the essential cooperation and inventive genius of Dr. Ather-ton Seidell of the National Institute of Health, and of Lt. R. H. Draeger, M. C., U.S.N., Naval Medical School, and the organizing ability of Watson Davis, Director of Science Service.

"In the early stages adequate mechanisms had to be invented and constructed, and this pioneer development was likewise a cooperation, between Science Service, the Chemical Foundation, the Rockefeller Foundation, the U. S. Navy, the Department of Agriculture Library, the Bureau of the Census, the Works Progress Administration and the Library of Congress.

"No copying at low cost was possible until an adequate automatic camera was

created, equipped with a carriage which would adjust automatically to bring both pages of an opened book in the same flat plane, and operated by simple touch of an electric button, permitting work to be run through with speed and accuracy. The result was the building at a cost of several thousand dollars of the special Draeger copying camera installed in the Bibliofilm laboratories, where two more advanced Draegers are being constructed. For use by the individual and libraries an adequate reading machine at a reasonable price was also needed, and that was developed. It has been turned over to commercial manufacture, as American Documentation Institute and its Bibliofilm Service do not engage in the sale of mechanisms."

Mr. Lee also told how editors of learned journals can lessen the strain on their budgets by making use of the Auxiliary Publication Service operated by American Documentation Institute, which makes available microfilm and photoprints of typescript and illustrative material deposited with American Documentation Institute.

Fifty Societies Interested

Those engaged in scholarly and scientific work and other research may obtain full details about this non-profit service by writing to Bibliofilm Service, care of U. S. Department of Agriculture Library, Washington, D. C.

Fifty national scientific and scholarly societies, councils and other organizations have nominated members of the American Documentation Institute, which was organized last year to operate Bibliofilm Service and perform other functions in the field of documentation needed by scholarly and scientific societies.

Mr. Lee is a graduate of Harvard and he was formerly a special assistant to Ambassador Francis during the World War. He resigned to serve in France in a staff corps of the army and as liaison officer on the Peace Commission. Re-

cently he has engaged in banking and publishing activities.

He became familiar with research and library problems as the author of several works of scholarships, notably a history of the early American portrait painters published by Yale University, and the standard manual of personal trust administration used in 44 states.

As director Mr. Lee will have direct charge of the operating activities of the American Documentation Institute, which include microfilming in the Department of Agriculture Library, the Library of Congress and the Army Medical Library, and the distribution of research results through the medium of microfilm in cooperation with scientific and scholarly journals.

Science News Letter, March 12, 1938

PHYSIOLOGY

Large Gland in Chest Seen Responsible for Virility

A FRESH clue to the mystery of the thymus gland, with an important practical relationship to male virility, appears in research reported by Drs. J. Gershon-Cohen, Harry Shay and Samuel S. Fels of the Fels Foundation and Drs. Theodore and David Meranze of Mt. Sinai Hospital, Philadelphia. (*Science*, Jan. 7)

The thymus is the large gland situated in the chest. So far, no one has discovered what its function is. Thymus glands of animals are sometimes called sweetbreads. In humans the glands tend to grow smaller with age and large glands have been held responsible for sudden and otherwise inexplicable deaths of infants. X-ray treatments of large glands in babies have been given in the hope of preventing the so-called thymus deaths. Here seems to lie the important practical aspect of the Philadelphia doctors' research, although they do not call attention to it in their scientific report.

When they X-rayed the thymus glands of infant rats, they found a striking decrease in the weight of the sex glands with almost complete disappearance of the germ cells and loss of reproductive ability. When these thymus X-rayed males were mated to either X-rayed or normal females, no offspring were produced. The pituitary glands of the X-rayed males showed the typical picture of pituitary glands in castrated animals.

No such changes were found in the sex glands of the females after X-ray treatment of the thymus. Both sexes, however, showed a general slowing up

of bodily development as measured by weekly weighings. The thymus-destroying X-ray treatments were given within 48 hours after birth of the rats.

The Philadelphia doctors conclude that their findings "indicate a close relationship between the function of the thymus and the proper development of the testes."

Science News Letter, March 12, 1938

MINERALOGY

Photographic Film Aids Radium Tests

RADIOACTIVE minerals in a rare ore sample from Jimtown, Colo., were recently determined without destroying the mineral by Dr. E. N. Goddard, U. S. Geological Survey mineral expert, by a new use of the test by which radioactivity was first discovered.

Placing a polished face of the ore sample on a sheet of photographic film, and leaving it untouched for some time, Dr. Goddard was able to determine, after the film was developed, the presence of pitchblende, a strongly radioactive ore of uranium, by its intense black markings on the film, and cerite, a weakly radioactive ore of cerium, from its gray markings. Substances that were not radioactive left no marks on the film.

Later analyses of this ore sample showed that it was about 940,000,000 years old, placing it among the oldest rocks known, formed during the long eras before life appeared on earth.

Science News Letter, March 12, 1938

RADIOACTIVE FINGERPRINTS

At left, photograph of polished face of the Jimtown ore sample, showing extremely complex mineral structure; at right, print made from photofilm on which sample had rested. Brilliant white spots were caused by uranium and its decomposition-product, radium; gray areas are due to the feebler radioactivity of cerite and yttrocerite; black areas indicate non-radioactive minerals

PSYCHIATRY

Playing With Shy Children, Doctors Learn Their Troubles

Young Patients Identify Themselves With Their Dolls, Indirectly Disclosing Secrets That Gnaw Their Minds

PLAY as a method of treating children with mental difficulties, behavior problems and even excessive shyness claimed the attention of members of the American Orthopsychiatric Association at their meeting in Chicago.

How can maladjusted children be made to disclose the cause of their difficulties? "Active play" was the answer given by Dr. Joseph C. Solomon, the psychiatrist at the Baltimore Clinic of the Mental Hygiene Society of Baltimore.

The method consists in playing with dolls with the child. "Active play," according to Dr. Solomon, is a new method in which the children play a game about themselves without disclosing their own identities.

"By active play therapy," he said, "the psychiatrist is able to secure first hand information from the mouth of the child as to how he or she is reacting to his or her environment."

The young patient identifies himself with the doll, and in his play is prone to make the doll express his own feelings.

"The mere putting his thoughts into words plays an important role in the child's mental catharsis," Dr. Solomon said. "It is generally accepted that the aeration of the child's mental conflicts has beneficial treatment value."

Children are also encouraged, he said, to express their animosities, and to give physical expression to their hostilities, as well as to talk about them. After re-

peated demonstrations the patient no longer feels the need to express his hostility.

"It should be kept clearly in mind," Dr. Solomon warns, "that the method is partly a trick by which a child says things about himself that he ordinarily would not tell."

Resentment may result if the child feels he has been trapped. During the treatment the physician participates actively, and from time to time, as a suitable occasion arises, makes suggestions to direct the child's future thinking. Thus therapeutic suggestions are incorporated in the play.

Shy, withdrawn children may become normal under proper care in which play has a part, Pearl Lowenstein of the Jewish Children's Bureau and Margaret Svendsen of the Institute for Juvenile Research of Chicago have found. These workers studied the behavior of 13 girls and boys ranging in age from 6 to 8 years at a small farm camp.

Under the guidance of a psychiatric social worker who directed a program of play the children gradually lost their shyness and became active and aggressive. Other difficulties, shown in disturbed sleep, eating difficulties and nervous mannerisms, improved or disappeared at the same time.

The most encouraging thing about this study, they said, was the fact that the improvement was often maintained after the children returned to the old environment.

Science News Letter, March 12, 1938

