conditions were not especially conducive to laboratory infection. In recent years, however, an increasing number of investigators have turned to the study of the human disease and of the behavior of virus of recent human origin in chimpanzees and monkeys of species other than rhesus. It was during the course of work on cynomolgus monkeys which had developed poliomyelitis following the oral feeding of a strain of virus isolated from a child in 1940, that our associate, B. J., contracted poliomyelitis. We have discovered in recent weeks that in these monkeys readily demonstrable virus was present in the buccal, lingual, pharyngeal and intestinal tissues and contents, and B. J.'s duties included the washing and grinding of these tissues in preparation for inoculation into other monkeys.

The circumstances of the illness are as follows: B. J. was working with these infected tissues until June 14, when she left the laboratory to go on her vacation. On June 25, she first felt indisposed with slight headache and nausea. On June 27 and 28 she went to bed because of general malaise and severe backache. On June 29, partial paralysis of the right leg appeared. In the next few days the temperature varied between 102 and 104 degrees Fahrenheit, and there was extension of paralysis involving the entire right lower and upper extremities, the urinary bladder, part of the left lower extremity and partial ptosis and small pupil on the right side with transitory diplopia. Spinal puncture revealed 192 cells per cu mm of cerebrospinal fluid. On July 3, the temperature returned to normal and no further progression of paralysis occurred. Virulent poliomyelitis virus was isolated from her on two occasions; first from a stool specimen obtained 24 hours after the onset of paralysis and the second time from the rectal and colonic washings, containing almost no solid matter, 3 days after the onset of paralysis. Extensive flaccid paralysis with typical histological changes in the spinal cord was produced in both cynomolgus monkeys and positive passage was obtained in each instance. The virus was not pathogenic for mice or guinea-pigs. It may be added that no outbreaks of poliomyelitis had been reported either in Cincinnati or the other places visited by her.

While other studies are still in progress, we believe that the balance of probability in this case is that the infection was contracted in the laboratory. Therefore, we wish to caution other investigators to observe the greatest care not only in handling tissues or excreta of human beings with poliomyelitis but also in working with monkeys (especially cynomolgi or related species) infected with virus of human or recent human origin. This may particularly apply when such virus is given by mouth or reaches the alimentary tract following nasal instillation, which is part of the method now commonly used in testing for the virus in human stools.

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ANOPHELES (KERTESZIA) BELLATOR D. & K., FOUND NATURALLY INFECTED WITH PLASMODIUM

IN the cocoa-raising districts of Trinidad, *Anopheles bellator* is the most abundant *Anopheles* mosquito; it breeds in the epiphytic Bromeliads which grow in great numbers on the lofty immortelle trees that shade the cocoa trees. The malaria rates in these areas are often high, and this mosquito has been suspected of being the vector. It is active during the twilight hours, and at that time attacks man in houses as well as out of doors. Unlike many other anthropophilous Anophelines, *A. bellator,* although it will enter houses and even bed-nets to feed on man, does not remain in houses after it has fed, but returns immediately to its resting places in the forests. Because of this habit, it is impossible to obtain freshly engorged specimens for determining the natural malarial infection rates among these insects; the females must be caught while they attack either the collector or another person being used as bait. Almost all the specimens captured by the authors appeared to be young females taking their first blood meals, but the 398th specimen dissected was infected with a single large oocyst, which ruptured as a result of slight pressure upon the coverslip, and liberated large numbers of motile sporozoites. The mosquito had been collected while it was attacking a native boy, near the Canadian Mission School on the St. Marie Immanuel Road, on July 11, 1941.

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THE PLACE OF MICROFILM COPYING IN LIBRARY ORGANIZATION

THE recently perfected process of making photographic copies of printed pages upon moving picture film is the most economical method so far devised for rendering available to larger numbers of research workers the collections of source material contained in scientific periodicals. It is evident that microfilm copying constitutes a very real improvement and extension of library service and is destined to become an ever-increasing activity in the larger reference libraries. It is fitting, therefore, to discuss the basis upon which it should be undertaken in order to pro-

vide the greatest benefits to research and to the public welfare.

Practically all great reference libraries are maintained largely at public expense or by endowments which have been collected for educational or cultural purposes. Their doors are open freely to all who are able to use their resources for the advancement of science or learning. A reader in one of these libraries is provided usually with a comfortable working place and he is waited upon by a corps of highly trained employees who place at his disposal as many books and as much reference material as may be desired. The reader takes away in his head or in the form of notes such portions of the published material as he needs. There is no charge whatever and in only rare cases is any attempt made to estimate the cost of this part of library operation. This and each of its other functions is looked upon as a public service contributing to the welfare of mankind.

The question now arising in connection with microfilm copying is whether this should be considered in the same light as other services freely rendered by libraries or as something different for which a charge should be collected. Since microfilms are material objects which cost definite amounts to produce it will probably be assumed that they should not be given away like ordinary library service for which no accurate account of its cost can be kept.

Thus the first stumbling block to considering microfilm copying simply as an extension and perfection of library service arises from the circumstance that microfilms are material objects. The fact that the many intangible services rendered by libraries cost a great deal and are performed without charge is generally not considered. The point may also be made, that although the question of just how much service a library should render a reader seldom arises, there might be difficulty in deciding how many microfilms should be made gratis for each person. These are the kinds of problems which make it difficult to include microfilm copying within the category of established library practice.

A question, however, of more fundamental importance for libarians to consider is whether the published reports in their periodical collections can be more efficiently and economically distributed to the many who are able to use them, by means of microfilms rather than by placing the books themselves at the disposal of the relatively few who can come to the library to consult them. It is also important to consider whether or not microfilm copying can be organized in such a manner that its cost will be no greater and possibly less than that required for lending books and maintaining the equipment and service necessary for library readers. In the opinion of those who have had experience with microfilm copying, this appears by no means beyond the realm of possibility. It is an objective worthy of the most serious effort.

Conditions have changed greatly in the organization and functions of reference libraries. The need of going to them to consult the literature has diminished greatly in the United States in recent years. Microfilms seem destined to hasten the day when it will no longer be necessary for any one to go to a reference library to satisfy his needs.

In conclusion the suggestion is made that publicly supported reference libraries eventually should perform microfilm copying for those engaged in research as freely as they now make interlibrary or other loans and provide facilities for consulting their books in their own reading rooms. Many other innovations in library practice were looked upon as dubiously in the beginning as the present suggestion may now be considered. It, however, offers such far-reaching advantages that its general adoption is certain to result in the ever-increasing contribution of libraries to the advancement of research and learning.

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SCIENTIFIC BOOKS

ELECTROENCEPHALOGRAPHY

Atlas of Electroencephalography. By F. A. GIBBS and E. L. GIBBS. 221 pp.; 104 illustrations. Boston: privately printed. $7.00. 1941.

THE "Atlas of Electroencephalography" by Frederick and Erna Gibbs appeared with a timeliness quite unintended by its authors. A few weeks after its publication the man to whom it is dedicated, Hans Berger, the father of electroencephalography, died. The atlas, with its dedication to Berger, will stand as a memorial to him. It will remind future electroencephalographers of the years of quiet, persevering work that preceded Berger's original publication, the polite skepticism with which his work was greeted and its ultimate verification and general acceptance.

Berger has had no more devoted disciples than the Gibbses. From their first year as electrophysiologists in the reviewer's laboratory they have read with care and understanding Berger's long and sometimes difficult papers and have carried Berger's point of view and spirit over into their own work. As they state, the atlas maintains a single point of view, that of the neurologist. They could equally well have said "the point of view of Hans Berger." Theirs is the spirit of exploration and the effort to deduce