able to retain on its staff the leaders in the various scientific and technical professions.

It has been well said that "civilization is measured by the ability to forego present pleasures for the sake of future benefits." In regard to the point which we have just been discussing, it is certain that only a few of our leading industries can be said on this basis to be civilized at all. Had it not been that many individuals have, by their generosity and vision, proved themselves "civilized" to a high degree, our technological institutions and the industries which have been so indebted to them would both now be in a pitiable state.

Just how industries can be brought to bear a fair share of the expense of giving first-class training to the men on whose discoveries and work they largely exist is a problem for the future. Certain it is, however, that its satisfactory solution would greatly accelerate the rate at which science and industry can contribute to the comforts and opportunities of life. In any case, however, the problem of personnel and financial means to maintain it at a high standard is one which presents a serious challenge.

The third problem of the future to which I should like to call attention is one which is not so fundamental as the two just discussed, but which is nevertheless very important and interesting. It is the problem of finding the most advantageous way in which the institute can cooperate with technical industries in the solving of their problems. As you know, a great step in this direction was taken with the inauguration of the so-called "Tech plan" and the formation of the division of industrial cooperation and research. Very valuable work has been done under this plan, but it has also had certain unsatisfactory features. I know from personal experience that contact of a university teacher with the practical problems of an industry can be professionally extremely stimulating and valuable. And certainly the institute should render every assistance in its power to any worthy cause within the range of its interests. The problem really consists in improving, if possible, the way in which this aid is rendered so that it may be not only as effective as possible in regard to the object of the assistance, but also done so as not to interfere with the other more fundamental activities of the institute—and if possible done so as to aid them. This problem is one requiring both study and wise counsel. Like every good problem, it presents opportunities as well as difficulties.

These problems which I have mentioned, and to which others might be added, are simply sign-posts pointing out the directions which our efforts must take in order to do our work most effectively. It is a work whose results will ultimately affect every man, woman and child and which should command the support of all except those few who are timid in the face of power or who for some reason fear to let man understand too much of nature. The Massachusetts Institute of Technology looks to us, who love and respect nature, to work out her future development. I join you in this work because I believe in its value, and for the same reason I feel confident of the cooperation of each of you, according to his position and opportunity. In its direct and indirect influence I can conceive of no more valuable service.

OBITUARY

ERNST CLEMENT ANGST

A CAREER which held every promise of distinction was terminated by the sudden death, on April 18, of Dr. Ernst Clement Angst, assistant professor of botany at the University of Oklahoma.

Dr. Angst was born in Chehalis, Washington, on February 15, 1899, of Swiss and Canadian parentage. He was educated at the University of Washington, receiving his doctorate there in 1929. He was married in 1923 to Carol Lavone Cramblitt, who survives him. From 1923 to 1927 he was a member of the faculty of the University of Idaho at Pocatello. He went to Oklahoma in 1929 and during his few months of service there won the undiluted respect and affection of his immediate colleagues and students.

In addition to published work on marine bacteria he was coauthor with Dr. H. H. Gran, of Oslo, of a monograph on the plankton diatoms of Puget Sound, now in press. At the time of his death he had collected, described and figured 145 species of Oklahoma diatoms nearly all of which were determined. This work will be completed for posthumous publication.

Dr. Angst was an unremitting investigator of the highest type, gifted with a facile and original technique and sound scientific judgment. In addition he was a splendid teacher whose lectures, erudite and methodical, were seasoned with quaint, incisive humor. His colleagues in the department considered it a privilege to listen in when they could, and it was not an unusual sight to see an entire class on the edges of its chairs. There is no question that a few more years would have seen Dr. Angst rated, not only as a great diatomist, but as a great teacher of botany.

PAUL B. SEARS
R. E. JEFFS
ADRIANCE S. FOSTER
R. H. MOORE