deal awkwardly with the Department and seem ineffective or inadequate in their international dealings. The present "lack of confidence in the Department of State on the part of wide areas of science" might be overcome, it is suggested, by better contact between the Department and the National Research Council. Such liaison might be effected by a more adequate organization of the NRC's Division of International Relations, and Dr. Berkner points out that the NRC's report on studies for the science policy survey (written by Douglas Whitaker and included as an appendix to the Berkner report) impies its willingness to take positive action if the State Department is prepared to cooperate.

Essential to the development of a State Department policy of support of international scientific unions, conferences, and congresses, Dr. Berkner emphasizes, is the need for competence to make wise decisions, and this should reside immediately within the Department. Equally important, he continues, is the need for full-time scientific personnel in our missions abroad to provide assistance and advice on the conduct of international meetings.

The science staffs assigned to United States diplomatic missions would serve primarily as representatives of American scientists abroad and as a connective link between American and other scientific groups rather than simply as listening posts designed to direct a one-way flow of information to the United States. As recommended, the staffs should be composed of specially qualified scientists, selected on the basis of recognized competence and appointed as foreign service reserve officers, while each staff should be headed by a chief science officer enjoying diplomatic status with the rank of attaché.

Geographically, according to the Berkner report, the posts to be given science staff representation should initially include London, Ottawa, Paris, Berne, Rome, The Hague, Brussels, Oslo (or Copenhagen), Stockholm, Lima, Johannesburg, Rio de Janeiro, and Sidney (or Canberra). Western Germany and Japan would be assigned analogous representation, although because of their occupied status special consideration would be required.

## HIPPOCRATIC OATH FOR THE SCIENCES?

ETHICAL CODE SUGGESTED

A plea for a formal code of professional scientific ethics has been advanced in an article appearing in the June 16th issue of the AAAS journal *Science*. Written by Ward Pigman and Emmett B. Carmichael of the University of Alabama, the article holds that the "unwritten code" of scientific ethics (a complex of tradition and of the scientific method) should be defined in writing by scientists, who have until now passed their traditions on simply by example and by word of mouth as an informal part of the graduate student's training.

The changing conditions of scientific work are reflected, the authors suggest, by the emergence of science from a period of individual research to a period dominated by large research groups, including those doing research for profit. The planning of an ethical code, they remark, should recognize the scientist's obligations to the whole of his society. The code, which should preserve the ethical traditions of science and incorporate the scientific method, should also, the authors feel, clarify the scientist's attitude towards such matters as warfare, the health and general well-being of mankind, nationalism versus internationalism, patent questions, and secrecy restrictions.

Pigman and Carmichael provide no answers. They outline the problem and some of the conflicting obligations with which a scientist can be faced today, going into particulars, for instance, in one area (the authorship of scientific papers) where the substitution of team for solo work has led to numerous thorny problems. The considerations involved here, they say, include the quality of papers, the direct responsibility of authors towards prior work, and criticism and disagreement by and among researchers in particular fields. Also discussed are such limiting elements and obligations as the property rights of a scientist with respect to his own work, senior authorship, the proper ordering of names, and the recognition of contributions by administrators, financial supporters, graduate students, and technical assistants.

Discussed briefly is the question of what the scientist's attitude should be towards publicity and popularization of his work. The article suggests that a firm stand on this issue by scientists along the lines taken by the medical profession towards self-advertising might be helpful in establishing the professional status of the scientist in the public mind.

Concluding with a plea for some means to curtail violations of professional ethics on the part of scientists, the article suggests that the scientific organizations, or perhaps an agency of Unesco, consider the manner of applying scientific traditions to the newly developed conditions of research on the grounds that "establishment of a definite code of professional ethics and conduct by our major scientific groups would have profound and favorable effects, for science, society, and the scientist".

## INTERNATIONAL LABORATORY URGED

EUROPEAN PHYSICS INSTITUTE

Last December it was proposed at the European Cultural Conference in Lausanne, Switzerland that a nuclear physics institute be established as a joint enterprise of the countries of Europe. Raoul Dautry of the French Atomic Energy Commission was quoted at the time as arguing that need for such an effort is urgently felt in Europe because no single country is large enough or can mobilize enough resources to compete with the United States in atomic research. The recommendation was adopted by the 150 delegates to the conference as one of several resolutions aimed at replacing competing national outlooks with a more unified European point of view.

Some six months later, during the Fifth General Conference of the United Nations Educational, Scientific, and Cultural Organization held in June at Florence, Italy, I. I. Rabi, professor of physics at Columbia University and a member of the United States delegation, made a similar proposal. A nuclear physics laboratory should be built in Western Europe, Dr. Rabi suggested, as the first