Integrity of Science in Government

PHYSICISTS have been greatly disturbed by the information that has reached them through the public press regarding the resignation of A. V. Astin from his position as Director of the National Bureau of Standards. The alleged grounds for the request of Dr. Astin's resignation by Secretary of Commerce Weeks were that the findings in certain tests on the prolongation of the life of storage batteries by a proprietary additive were incorrect. Though this conclusion is open to question and the performance of the tests antedated Dr. Astin's incumbency as Director of the Bureau, what is of still greater concern to scientists is that the Secretary of Commerce appears to believe that science and politics are miscible in the cauldron of the marketplace. Members of the Institute of Physics will welcome the views of a committee under the chairmanship of Dr. M. J. Kelly, upon which the Institute is represented by Dr. L. A. DuBridge, which has been appointed to evaluate the present functions and operations of the Bureau and which will furnish Secretary Weeks and the public with a report on its findings.

The Bureau of Standards is held in high scientific regard. It has for many years served annually as host to the professional societies of the Institute and our members know intimately its work in their special fields. They rely implicitly upon the technical competence of the Bureau's staff and upon the accuracy of the measurements its scientists perform. No substantial occasion has ever arisen to question that the standards certified to by them are anything but what they purport to be or that the accuracies given are in error. This is an enviable reputation of which the Bureau is justly proud and for which their scientific colleagues throughout the country are greatly indebted and deeply appreciative. Confidence in the Bureau's scientific integrity is a cornerstone of the structure of our national scientific effort.

The Bureau's primary function is to determine and certify to scientific facts. As an additional function it furnishes advisory services to government agencies on scientific and technical problems. This involves the Bureau in the formulation of conclusions and judgments on these facts that are necessarily to some extent subjective. For instance, an electrical meter is good for one purpose if it is small, rugged, and rapid in response, and good for quite a different purpose if it is accurate, sensitive, and permanent in its calibration. The qualities that are desirable are in the last analysis for the user to decide, but the degree of conformity with the standards of these qualities is a matter in which the Bureau's findings must be correct and definitive.

The prudent expenditure of the vast sums involved in the operation of our government requires that the highest quality of disinterested scientific and technical advice should be available to all administrative agencies. Each department cannot maintain its own technical staff competent in all of its fields of interest and it was the intent of Congress in the establishment of the Bureau of Standards that it should furnish the requisite scientific advice and assistance in an appropriate capacity when called upon to do so. The rapid growth of science and technology has imposed an increasing pressure upon the staff and facilities of the Bureau and the extent to which it should be obligated to respond to the many requests for its services by government, education, and industry, and the manner in which these services should be rendered are matters of public policy which are rightly the concern of the National Administration. At present the channel of authority is through the Secretary of Commerce, and the Committee that the Secretary has appointed will give him wise counsel upon the technical aspects of these questions. If the administrative location of the Bureau in the Department of Commerce subjects it to commercial pressures inimical to the disinterested rendering of those scientific services which it is uniquely qualified to perform, it should be established as an independent agency, as Representative Hyde has proposed. The work of the Bureau is essential to the national scientific welfare and its competence and integrity must be fostered and enhanced by wise public policy.

It would also be a mistake to view too narrowly the activity of the Bureau in establishing and maintaining scientific and technical standards. This is not a routine mechanical function; the growth of science requires that it be broadly based and in the hands of a highly-qualified, alert, and imaginative staff of scientists. An advance in any field of scientific technique is a potential tool in every other. The progress in nuclear physics alone during the past decade has opened vast potentialities for the public good and brought in its train the need for new definitions, criteria, standards, instruments, and techniques both for the utilization of the phenomena themselves and for protection against the hazards they entail. If the Bureau is to perform its function for science its staff must be of such a quality that it participates in the advancement of research. The testing and standardizing function if it is to be well done must be supplemented by creative scientific effort and the administration of the Bureau must be such as to foster a free and exploratory atmosphere if a competent scientific staff is to be maintained.

Whatever evaluation the Committee provides of the functions and operations of the Bureau of Standards it is of the highest importance that within the field considered appropriate to the Bureau the work done should be of the highest scientific standard uncompromised in any way or for any reason. For this to be so the program must continue to be carried out by a staff of outstanding technical competence which merits the unquestioning confidence of the nation's scientists and which is not subject to the imputation of impropriety by a political party or by any special interest whatsoever.

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