

properly very long under such conditions as these?"

Felix Bloch: "To quote a specific example in which I have first hand experience, I want to mention the circumstances under which I made the discovery of nuclear induction. My previous work had been in the field of atomic and nuclear physics and it was only my occupation with radar problems during the war which made me familiar with the, then, highly restricted information of radio techniques. The discovery consisted in the application of these techniques to some properties of atomic nuclei and could not have been made without the knowledge of both. It occurred to me only because I worked fortuitously in the one of the many small and separated compartments of war research which happened to contain the information which I needed."

Glenn T. Seaborg: "I think that if there is any conclusion upon which all scientists have complete agreement it is that exchange of information is vital for maximum progress and elimination of waste motion. Also, since, among human pursuits, science is almost unique in being immediately transferable across national boundaries, exchange of information must be considered on a global basis. As chairman of a committee of the United States Senate, you are properly concerned with the implications of free international exchange of information on our position as a nation. Contrary to what one might guess, it is the nation in which science is already flourishing that stands to gain greatly. The probability that a new idea or development in methods can be exploited in generating new ideas and developments is proportional to the number of receptive ears which hear about it and to the adequacy of facilities for doing something about it."

Edward C. Kendall: "The objective of all creative research is to enlarge the horizon which circumscribes the fund of knowledge in the world of science. The best situation in the best of possible worlds would be rapid dissemination of all new work. The information thus made available would, of itself, be a powerful stimulus. This would lead to a constantly increasing acceleration and would indeed be the tangible evidence of what Prof. Charles Beard has cited as the 'invention of invention.'"

"As a dismal contrast one merely has to go to the other possible extreme. In such a world, investigators in all research laboratories and medical institutions

would work behind locked doors. No results would be published, all workers would be isolated, all publicity by the association of science writers would be suppressed. Interest in science would decrease, the tempo and scale of research would slow down, a feeling of indifference and hopelessness would crush initiative, a moratorium on progress would ensue."

Percy W. Bridgman: "The scientist feels so strongly about this [freedom of communication] that I believe it may well be a decisive factor deterring a young man about to choose his career from entering a [field] subject to such restrictions. A manifestation of this same feeling is the decision of Harvard University, and of other universities also, not to engage in any work with government money under government contract which was not freely publishable. I myself have not had close connection with government work, but in one instance I was decisively influenced by considerations of this sort. At the close of the war I declined to continue work under government contract on a subject of some real scientific interest to me because I found association with the government, and in particular the probability of secrecy restrictions, too distasteful."

William P. Murphy: "It is my impression that the effect of restrictions on the free exchange of information on science developments is at least somewhat exaggerated and that it is actually rather minimal. Much of the complaint has come from a few physicists who are perhaps influenced by a more radical group who are more vocal in their objections because of their basic beliefs."

"It is my belief that restrictions should be continued and perhaps increased in those branches of science which are concerned with the sensitive areas of scientific development where restriction may be more important than would be the benefits which might be derived from the free dissemination of information."

Bill to Spur Private Philanthropy Introduced in Senate

A Congressional move to stimulate private philanthropy for education has been strengthened by the introduction in the Senate of a companion bill to one introduced earlier this year in the House of Representatives. The Senate bill, S 2241, was entered 24 June by James Murray (D-Mont.). The earlier bill, HR 2440, was introduced 15 January by Rep-

resentative Frank Thompson (D-N.J.). The two bills, which are identical, are designed to equalize the out-of-pocket costs, to individuals as well as corporations, of gifts to institutions of higher learning. Under the present laws it costs a wealthy man considerably less to give away a dollar than it does a man of moderate means. When a person with a taxable income of over \$400,000 a year gives a dollar to philanthropy, 9 cents comes from his pocket and 91 cents from the tax that he would otherwise have had to pay. When a person with a taxable income of \$5000 gives away a dollar, 80 cents comes from his pocket and 20 cents from his tax payment.

At this writing the Ways and Means Committee, to which Thompson's bill was referred, is waiting for reports on the measure from the departments of the Treasury and Health, Education, and Welfare. After these reports have been considered the committee will decide whether to send the bill to the House floor.

Murray's companion bill has been referred to the Senate's Finance Committee, chaired by Harry Byrd (D-Va.). There, as in the House, reports will be requested from the pertinent departments of the government, in this case probably the Budget Bureau and the Treasury. Beyond this, the Senate will probably do little more until the House acts, since the House alone has authority to initiate taxation and revenue-raising bills. Murray's action, however, is important because it gives the bill greater publicity and allows the Senate to become familiar with the provisions of Thompson's proposal. Also, with both chambers considering the measure, earlier action is possible.

\$53 Million Asked for 2-Year Seismic Research Program

The Panel on Seismic Improvement, a subgroup of the President's Science Advisory Committee, recently submitted a detailed report on the need for fundamental research in seismology. The report consists of the panel's recommendations for a research program that would resolve many of the present uncertainties over detection and concealment of underground nuclear blasts. The panel points out that the program, which might be directed by the National Academy of Sciences, would greatly advance seismology. Excerpts from the report follow.