

## INSTITUTE

DOINGS



The big brother of the physics journals, the Physical Review, had quite a year in 1949. In terms of words published, it was nearly six times as big as in the low year of 1945 and 70 percent bigger than the prewar record in 1939.

The Physical Review in 1949 carried 4076 pages, and it must be remembered that, with the format changes of 1949, there are now many more words to a page than ever before. It was more than twice as big as any other of the American physics journals. Its pages comprised 33 percent of the total of all these or about a third of institute doings in the field of production.

On the other hand the Physical Review has not yet matched the 1939 figure for pages-per-member of the American Physical Society. The average member now writes 0.51 (old size) pages as compared with 0.75 pages per member ten years ago. This might mean that physicists have become really busy and less verbose. Or perhaps the editor and the reviewers are now sterner. But it may mean that the rise of big machines with their teams has cut down the volume of research reports per man. Perhaps physics has in some sense not yet regained its stride after the war, but this seems hard to believe.

Whatever may be said about the number of pages in the Physical Review, there are certain interesting statistics about their contents. For example, about 64 percent of these pages in 1949 reported researches in nuclear physics, including cosmic rays and magnetic resonance. The remaining 36 percent, including spectroscopy, solid state, low temperature, and all the other subjects, have not been analyzed.

Also interesting is an analysis of the pages of the Physical Review in terms of financial sponsorship of the researches. In 1949, 56 percent of the pages in the journal carried reports of research sponsored wholly or in part by the government. To make this total, 17 percent of the pages derived from Office of Naval Research sponsorship, 16 percent from Atomic Energy Commission sponsorship, and 6 percent derived from other military agencies. Nongovernment research reported filled the remaining 44 percent of the Review's pages with 39 percent from domestic sources and 5 percent from foreign.

It is just as well not to embark here on the many reflections, both bright and dark, that these figures give rise to. They tell something important about trends affecting the science of physics and so they should be known. Professor E. L. Nichols of Cornell was a far-sighted man when he established the Physical Review, but the reality of its 57th year must be far indeed from any goal that he could have imagined in 1893.

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## FOOTNOTES TO SECURITY

NATIONAL SCIENCE FOUNDATION

The bill for a national science foundation was approved by the House of Representatives on March 1 by a vote of 247 to 125. The measure now goes to a joint congressional committee for resolution of differences in the versions of the bill as passed by the Senate and by the House.

As it was passed by the House, the bill includes provisions for strict security checks on the foundation's activities. An amendment was proposed by Representative Howard W. Smith, Democrat from Virginia, providing that foundation employees and scholars shall first have been investigated and then adjudged loyal by the Federal Bureau of Investigation. (The FBI has since reaffirmed its opposition to certifying the people it investigates.)

Another amendment, sponsored by Representative Daniel J. Flood, Democrat of Pennsylvania, provides that full clearance must be given by the FBI for any national of any foreign government before he may be permitted to be associated "in any way whatsoever" with the foundation.

Both amendments were quickly approved and read into the House bill, even though atomic energy research had previously been separated from the foundation's proposed activities.

## AEC FELLOWSHIPS

The provision for loyalty and security investigation for all candidates for Atomic Energy Commission fellowships included in a rider to the 1950 Independent Offices Appropriations Act passed by Congress in August of last year, led the National Academy of Sciences to recommend that its National Research Council should not accept the responsibility for further administration of the program. The reason given at the time was that the value of the broad program had been greatly reduced by this restriction and grave doubt was expressed whether the continuance of the AEC fellowship program thus restricted could be considered in the national interest.

Subsequent discussions with the AEC, however, led to an agreement that the program be continued under the NRC, but that predoctoral fellowships be limited to renewals only and that postdoctoral fellowships be awarded only to those engaged in work requiring secret information.

Faced with the virtual elimination of the predoctoral fellowship program, the AEC came up with another solution. In mid-February it was announced that a new program in the biological and physical sciences would be sponsored by the Commission, to be administered on a regional basis by institutions located in the northeast, southeast, midwest, and west. The new predoctoral program differs from that administered by the NRC during 1949-50 in that subjects of research must be sufficiently related