

GENERAL SCIENCE

Battle Over Funds Opens

► SENATE HEARINGS set the stage for what is expected to be a hot, drawn-out fight over who gets what part of some \$15 billion in Federal funds for scientific research and development.

Before the battle is over it should involve educators, scientists and politicians sharply divided over whether there should be legislation to stipulate that funds must be allocated along some geographic guidelines.

The hearings will be held by the employment and manpower subcommittee of the Labor and Public Welfare Committee. Sen. Gaylord Nelson (D-Wis.) will preside.

Senator Nelson's office told SCIENCE SERVICE that there is no coordination of where the research funds go.

"As a result," a spokesman said, "there is gross inequity and overconcentration of grants in certain areas."

California was cited as a prime example of the result of grant concentration. That state receives 38% of the Federal research budget. By contrast the 20 Midwest states received a combined total of 14%.

Opponents of any change, however, maintain that population should also be a standard of judgment as well as the existence of facilities to do the specific task in question.

Testimony already filed with the subcommittee for the seven days of hearings indicate that neither side is prepared to give.

"The opponents are diametrically opposed and exceedingly forceful in their positions," according to a committee spokesman.

Senator Nelson said that the present hearings are "purely exploratory" to learn "to what extent the present distribution promotes the development of various regions and hinders the development of others."

The question of whether to draft legislation in this field will be decided following the hearings.

"The relationship," the Senator said, "between science and technology, economic development, the utilization of manpower, and the generation of employment are complex ones."

"Even more complex and little understood is the role the Federal Government plays in the interaction which generates scientific and technical capacity, and which may or may not produce the growth of employment and prosperity in any given area."

The committee has scheduled 28 witnesses. They include: Dr. Glenn T. Seaborg, Chairman of the Atomic Energy Commission; Dr. Donald Hornig, special assistant to the President for Science and Technology; Gov. Otto Kerner of Illinois, and Dr. Fred H. Harrington, President of the University of Wisconsin.

• Science News Letter, 87:372 June 12, 1965

CHEMISTRY

Computer Aids Chemistry

► A GIANT COMPUTER system that will one day be able to remember the structures of all the known chemicals will make it possible for chemists to do instant chemical research.

The computer system, known as the registry system, is now under development on the pilot scale in the new \$6.8 million home of the Chemical Abstracts Service in Columbus, Ohio.

Thousands of chemicals are already listed in the system and researchers hope to list all of the known compounds within two years. Some 2.5 million different compounds are known so far and some 75,000 new discoveries are added to that total each year.

The registry system is essentially a system of attaching a kind of "social security number" to chemical compounds. The purpose is to present a unique representation of every known chemical compound. In addition, names and bibliographies of the compounds are also filed.

The computer system can be used to tell whether a certain compound is new or not by comparing it with those already listed. Also, the system can be used to locate all the compounds having certain characteristics.

The new home of the computer system, adjacent to the Ohio State University campus, houses 650 chemists, linguists, edi-

tors, experts in information handling and supporting staff of the Chemical Abstracts Service. Their principal publication is Chemical Abstracts, a biweekly volume containing summaries and indexes of reports on progress in laboratory research and engineering development in all parts of the world.

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TECHNOLOGY

Fastest Shot Aids Study Of Space Flight Problems

► THE FASTEST SHOT ever fired, 25,300 miles per hour, has come from a 20-foot-long, light-gas gun.

Study of objects that move this fast applies directly to space flight problems because small meteorites may bombard spacecraft hulls, spacesuits and space stations at approximately these velocities.

The guns are also used for research in entry into the atmospheres of the earth and planets, into the properties of gas flow around solid objects, to study materials under superspeed conditions, and to check theories of high speed impact.

The shot was fired at the National Aeronautics and Space Administration's Ames Research Center near Mountain View, Calif.

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Questions

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CHEMISTRY—What system is being devised to establish a registry for all known chemical compounds? p. 372.

GEOPHYSICS—What evidence indicates that the American continents were once separated by seaways? p. 377.

NUTRITION—What percentage of children under 14 years of age in the developing countries are malnourished? p. 374.

PSYCHOLOGY—In what way do smoking habits reflect childhood experiences? p. 373.

PUBLIC HEALTH—How may cleaning powders endanger a person's health? p. 375.

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