

GENERAL SCIENCE

Science Foundation Closer

Only about one more legislative step is necessary to bring about the establishment of a National Science Foundation with funds for research.

► A NATIONAL science foundation should begin speeding basic research in America within a few months.

The passage of a national science foundation bill by the House on July 16 after about three hours of debate is almost the last legislative step toward the civilian agency to back science for peace and future emergencies in much the same way that science was applied to the war.

The bill as passed by the House differs in only a few major ways from the bill the Senate passed in May. An attempt to put into the House bill on the floor the provisions that would earmark a quarter of the expected appropriations for the tax-supported colleges in the various states was defeated 81 to 33. Since this provision favored by the land grant colleges was inserted in the Senate bill on the floor of the Senate, it is likely to be eliminated when the Senate and House conferees meet.

The key man in the actual operation of the foundation will be the director. The Senate bill provides that he be nominated by the President and confirmed by the Senate, while the House bill has him appointed by the foundation. The final bill may bow to the Presidential appointment, as a recognition that the foundation is a part of the executive branch of the government.

President Truman is known to be very strong in his opinion that the foundation should be an effective and responsible agency within the government. However, it is not expected that his preference for presidential appointment of the director would keep him from signing the bill even if the House provision is in the final version.

The bill itself does not appropriate any money. There may not be time for an appropriation this session of Congress. This will not necessarily stop the foundation from getting underway. Organizational funds could probably be transferred from some existing appropriation.

When the director has qualified and

been in office for 30 days under the bill, the foundation would take over what is left of the war-time Office of Scientific Research and Development. This agency received \$90,000 for the current fiscal year. While it is a mere pittance compared with the hundreds of millions it spent during the war, this sum would probably allow the foundation to get organized and save several precious months. In research, a few months of saving of time may be the difference between success and failure.

Science News Letter, July 26, 1947

CHEMISTRY

Ultraviolet Radiation Can Change 2,4-D's Power

►ULTRAVIOLET radiation can change the plant-killing power of 2,4-D and the various commercial compounds in which it is usually sold. This has been demonstrated in tests made by Drs. Merle G. Payne and Jess L. Fults of the Colorado Agricultural Experiment Station.

They exposed small batches of 2,4-D and half-a-dozen of its compounds to carefully adjusted amounts of ultraviolet irradiation. Then they made up solutions of both treated and untreated samples and applied them to pea seedlings used as vegetable guinea-pigs in their experiments.

In general, irradiation increased the killing power of 2,4-D and most of its compounds, although the record is spotted with cases where it had the opposite effect. The ammonium salt of 2,4-D was weakened in almost all tests.

These tests, the two researchers point out, were made on commercial preparations, because it was of practical importance to get an immediate answer. If chemically pure preparations had been used, the results might conceivably have been different; such tests are recommended.

The tests, Drs. Payne and Fults add, "suggest a possible explanation of the variable results secured from uniform

trials of 2,4-D and similar compounds at different times and places. Since the amount of ultraviolet light reaching the earth varies with change in atmospheric conditions, altitude and season of the year, the herbicidal effects might be expected to vary accordingly. Field tests to settle this question are suggested."

Details of the experiments are reported in *Science* (July 11).

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The so-called "Santa Fe" architecture of adobe houses in the American Southwest originated in Indian homes built of sun-dried earth blocks, or of sticks and mud, long before white settlement.

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