GENERAL SCIENCE

Science in the Budget

Truman's plan would postpone the organization of any science foundation, urged by scientists of the American Association for the Advancement of Science.

➤ THE ESTABLISHMENT of a National Science Foundation or its equivalent is recommended by President Truman in his budget message to Congress as a "central agency to correlate and encourage the research activities of the country."

"While freedom of inquiry must be preserved," the message says, "the federal government should accept responsibility for fostering the flow of scientific knowledge and developing scientific talent in our youth."

While again recommending the National Science Foundation to Congress, the President calls attention to the fact that the Scientific Research Board which he appointed under Reconversion Director Steelman in October is making a study of governmental research activities.

The Presidential message suggests that this report will be of service in "establishing a proper program for the new agency." The message also states that "it is assumed that no additional expenditures will be required during the fiscal year 1948."

If this procedure were followed, it would postpone the organization of any science foundation until the middle of 1948 or one and a half years hence.

This will come as a shock to many scientists who are now organizing under the leadership of the American Association for the Advancement of Science an intersociety committee to aid Congress in considering at the present session of Congress some sort of science foundation.

While national science foundation bills were failing to pass the last Congress, the military departments, particularly the Navy, stepped in and gave extensive grants for basic research to university and other laboratories.

The Office of Scientific Research and Development which did major war research will be almost completely liquidated by the middle of this year, the message points out.

While detailed figures are not given in the budget, intense prosecution of scientific research and development for the National defense is contemplated in the recommended appropriations. This is one of the reasons for the high cost of the Army and Navy compared with the pre-war era, along with occupied areas, large forces, and extensive mechanized equipment that must be prepared.

Stock piling of strategic materials for any future war emergency will continue, with new purchases being made and large transfers from the RFC stocks to military stock piles.

Atomic energy expenditures in the year beginning next July 1 will be more than double the amount being expended this fiscal year, and this estimated expenditure of $443,000,000 for next year is explained in part by the fact that during post-war days of the Manhattan District, now transferred to the civilian commission, replacements and maintenance needed were not made.

The message renews recommendations for federal supplements to equalize educational opportunities and standards in the states. The government's relationship to higher education should have serious consideration, the President says, and a commission is studying the matter.

Science News Letter, January 18, 1947

PHOTOGRAPHY

Photo-Flash Unit Takes Fast Pictures

➤ AN ELECTRONIC photo-flash unit which fires photographic flashes faster than the average photographer can take pictures has been developed by the Navy.

The compact, light-weight unit is designed to operate at three-second intervals, firing 4,000 flashes without changing batteries. The new unit produces more than 10,000 flashes with a single bulb and consumes less electricity for 10,000 flashes than an average light bulb burning all day.

The electronic unit was developed by Brandt B. Conway of the Naval Research Laboratory Airborne Coordinating Group and the Research and Development Branch of the U. S. Naval Photographic Service, both at Anacostia, D. C. Mr. Conway is on loan to the Navy from the Philco Radio Corporation.

Standard service model of the photographic flash unit will weigh 11½ pounds and will fire 1,500 times, though provisions have been made to use batteries enabling photographers to get 4,000 flashes without changing batteries.

Exposure time for the flash with the electronic unit is 1/10,000 of a second with the total light equal to a medium size flash bulb. The light is triggered either with a manual button or a synchronizer for electrical triggering.

Navy photographic research work is now underway to adapt the new unit to trivision, the Navy's third dimensional photography.

Commercial models of the flash unit will be available at a later date, the Navy said.

Science News Letter, January 18, 1947

PUBLIC HEALTH

World in Better Health Than Expected After War

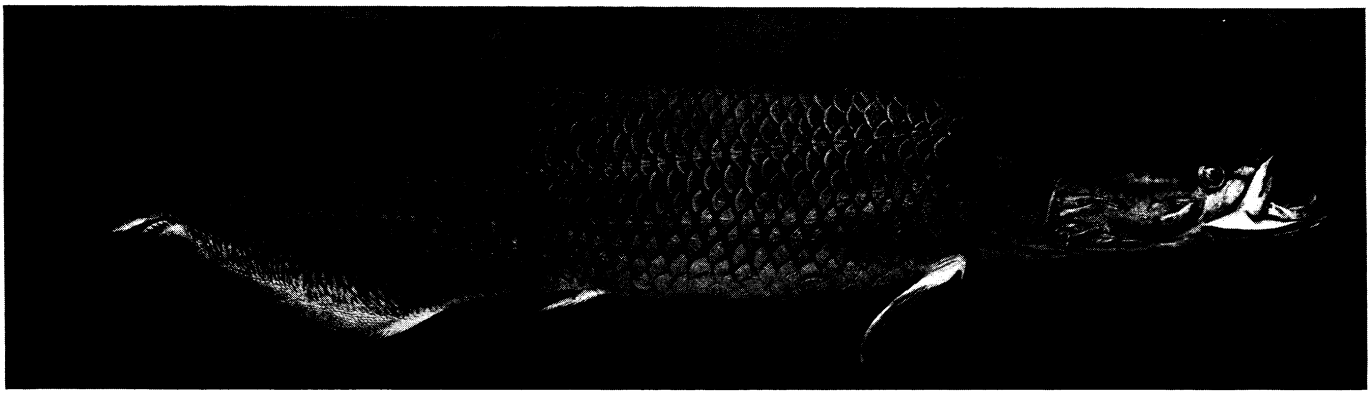
➤ "THE WORLD is in far better health today than we ever dreamed it could be so soon after the most widespread and devastating war in history," Dr. Wilbur A. Sawyer, internationally known health authority and director of the health division of UNRRA, declared.

UNRRA's health activities in Europe in connection with administration of the International Sanitary Conventions of 1944 have now been turned over to the interim commission of the new World Health Organization. WHO is also receiving from UNRRA some funds for carrying on these activities and UNRRA supplies still in European countries for controlling epidemics.

"Now that the main emergency is behind us," Dr. Sawyer stated, "the continuance of international disease control can confidently be left to the health departments in the countries themselves with the support of the new World Health Organization."

UNRRA health activities in China will be turned over to WHO on March 31.

"After World War I," Dr. Sawyer said, "there were tremendous epidemics of typhus fever, typhoid fever and other diseases. Following this war in which destruction and displacement of peoples was much greater and governmental health agencies were largely disrupted, there have been no major epidemics in Europe."



NINE FEET LONG—This model of the pirarucu, biggest fresh water fish in the world, is nine feet long. It is on exhibit at the Chicago Natural History Museum.

"Part of this accomplishment is due to the advances in medical science between the wars. Major credit should, however, be given to UNRRA for getting health departments on their feet and for supplying them with enormous quantities of effective new drugs and insecticides such as penicillin and DDT.

"Phenomenal results were obtained in Poland in the suppression of typhus with DDT powder and in Greece in a nationwide attack on malaria by airplane sprayings of marshes and hand spraying of houses and small streams with DDT."

Science News Letter, January 18, 1947

ENTOMOLOGY

Tires Hide Stowaways

Pacific island mosquitoes have ridden to this country in tires and shell cases. DDT is on the job to prevent the spread of disease.

➤ HUNDREDS of thousands of Pacific island mosquitoes, some of them potential disease carriers, have been coming to this country in tires and perhaps also in shell cases and amphibious vehicles returned from combat areas by the Army and Navy.

The stowaways were first detected by Sanitary Inspector John L. Chambers of the U. S. Quarantine Station, Port of Los Angeles. During a routine Public Health Service quarantine inspection of a cargo ship from the New Guinea area, he noticed several live adult mosquitoes in one of the holds of the ship. Crew members also complained to him that they had been annoyed by mosquitoes for five or six days after leaving port.

"An investigation revealed that mosquitoes were breeding heavily in fresh water contained in motor vehicle and aircraft tires which constituted a large part of the cargo," Assistant Sanitarian John J. Pratt, Jr., Dr. Robert H. Heterick and Dr. John B. Harrison of the U. S. Public Health Service and Capt. Louis Haber of the U. S. Army Sanitary Corps report in the Military Surgeon.

"It was estimated that approximately one half of the 8,880 tires aboard contained water varying in amount from one cup to five gallons per tire and that a large proportion of these contained living mosquito larvae. It is conservatively estimated that the average tire examined contained from 20 to 30 larvae."

Before the ship docked, all openings leading into the holds were closed and each hold was thoroughly sprayed with freon-pyrethrum aerosol. Many dead adult mosquitoes were recovered from the holds after spraying. Later a disinfestation squad was stationed on the dock warehouse loading platform armed with knapsack sprayers containing 5% DDT in kerosene. As the tires were unloaded and rolled into freight cars they were quickly inspected for water. Those found containing any were sprayed with DDT. This avoided delay in moving tires from ship to cars for trans-shipment. The cars were also thoroughly sprayed before the tires were loaded against any adult mosquitoes that might emerge in transit from any larvae or pupae not killed when the tires were treated.

Some of the mosquitoes were identified as carriers of dengue fever and filariasis in their native Pacific islands. Some were not known as carriers of human diseases, though there is always a possibility that such mosquitoes may become carriers in a new environment. In 11 subsequent shipments of tires, water was found in eight and mosquitoes were found breeding in three of the shipments. Amphibious vehicles were also found to contain water, but no mosquitoes were found breeding in them. All material which contained water was routinely treated with DDT in kerosene.

Science News Letter, January 18, 1947

ICHTHYOLOGY

Biggest Fresh Water Fish Grow to 15 Feet Long

➤ THIS WEEK'S fish story, authenticated by the Chicago Natural History Museum:

Down South America way, in the Orinoco river, relatives of the herring grow to be 15 feet long. The pirarucu is the largest fresh water fish in the world.

Proof: Taxidermist Leon L. Pray has mounted a nine-foot model of this giant fish for public admiration. That 15-foot size is admittedly of one that got away, presumably, as the Museum put it down as an "unverified report" worth repeating however.

This story has teeth in it. The pirarucu has a bony tongue and natives collect the rasp-like teeth covering the tongue and use them to grate coconuts and roots for their dinner tables.

Science News Letter, January 18, 1947